

# LIQUEFIED NATURAL GAS REGULATIONS

Revised October 2003



## **Railroad Commission of Texas**

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## **SUBCHAPTER A**

### **GENERAL APPLICABILITY AND REQUIREMENTS**

#### **§14.2001 LNG Advisory Committee**

- (a) Definitions. The following words and terms, when used in this section, shall have the following meanings, unless the context clearly indicates otherwise.
- (1) Commission--The Railroad Commission of Texas.
  - (2) Committee--The LNG Advisory Committee of the Railroad Commission of Texas.
  - (3) Consumer representative--A member of the committee who is not engaged in the business of producing, distributing or retailing LNG and who is not engaged in the business of designing, manufacturing, distributing or retailing LNG equipment or performing LNG related research or other services, but who is an end user of LNG fuel, including but not limited to a consumer of LNG as an automotive or other transportation fuel.
  - (4) Division--The Gas Services Division, LP-Gas Section, of the Railroad Commission of Texas.
  - (5) Fiscal year--September 1 of a year through August 31 of the following year.
  - (6) Industry representative--A member of the committee who is engaged in the business of producing, distributing or retailing LNG or who is engaged in the business of designing, manufacturing, distributing or retailing LNG equipment or performing LNG related research or other services.
  - (7) Local government representative--A member of the committee who is a fire marshal for a city or county.
  - (8) LNG--Liquefied natural gas, as that term is defined in Texas Natural Resources Code, Chapter 116.
  - (9) Member--An industry representative, a consumer representative, or a representative of local government who serves on the LNG Advisory Committee of the Railroad Commission of Texas.
  - (10) Presiding officer--The chairman of the LNG Advisory Committee of the Railroad Commission of Texas.
- (b) Establishment; Duration. The LNG Advisory Committee of the Railroad Commission of Texas is hereby established effective January 1, 1995. The committee is abolished on August 31, 2006, unless the commission amends this subsection to establish a different date.
- (c) Purpose and Duties. The purpose of the committee is to give the commission the benefit of the members' collective business, environmental, and technical expertise and experience to help the commission develop and implement rules for the safe use of LNG. The committee's sole duty is to advise the commission. The committee has no executive or administrative powers or duties with respect to the operation of the division. All such powers and duties rest solely with the commission.
- (d) Composition of Committee; Membership Terms. The committee shall be composed of eight members, seven of whom are voting members. The seven voting members shall include three LNG consumers, three members of the LNG industry, and one representative from local government; one industry representative shall be a registered professional engineer licensed to practice in the State of Texas. All members serve at the pleasure of the commission, for a period

of two years. The Gas Services Division director's delegate shall serve as an ex officio, non-voting member of the committee.

- (e) Nominations for Committee Membership. Any person may nominate a candidate or candidates for membership on the committee. Nominations shall be in writing and submitted by November 15, 1994, for the initial committee, and by January 1 of each odd-numbered year thereafter. Nominations may be submitted to the commission, a commissioner, or the director of the division for transmission to the commission.
- (f) Appointment of Members. All members of the committee are appointed by and serve at the pleasure of the commission. The commission shall appoint members of the first committee by January 1, 1995, and by August 31 of each odd-numbered year thereafter, such that the composition of the committee meets the requirements of subsection (d) of this section. If a member resigns or otherwise vacates his or her position prior to the end of his or her term, the commission shall appoint a replacement who shall serve the remainder of the unexpired term.
- (g) Reimbursement of Members' Expenses. The commission shall not reimburse members for travel or other expenses related to service on the committee.
- (h) Presiding Officer; Other Officers. The committee shall elect from its members a presiding officer who shall report the committee's advice and attendance in writing to the commission. The committee may elect other officers at its pleasure.
- (i) Subcommittees. The committee may organize itself into subcommittees. One member of each subcommittee shall serve as the chair of that subcommittee. The subcommittee chairs shall make written reports regarding their subcommittee's work to the presiding officer.
- (j) Meetings. The committee shall meet at the call of the presiding officer or the commission. Committee and subcommittee meetings are open to the public.
- (k) Committee Records. The division staff shall record and maintain the originals of the minutes of each committee and subcommittee meeting. The division shall maintain a record of actions taken by the committee and shall distribute copies of approved minutes and other committee documents to the commission and the committee members.
- (l) Evaluation of Committee Costs and Benefits. By October 1 of each year, the division director shall evaluate for the previous fiscal year and report to the commission:
  - (1) the committee's work;
  - (2) the committee's usefulness; and
  - (3) the costs related to the committee's existence, including the cost of commission staff time spent in support of the committee's activities.
- (m) Report to Legislative Budget Board. The commission shall biennially report to the Legislative Budget Board the information developed under subsection (l) of this section in evaluating the committee's costs and benefits.

#### **§14.2004 Applicability, Severability, and Retroactivity**

- (a) The Regulations for Liquefied Natural Gas are intended to apply to the design, installation, and operation of liquefied natural gas (LNG) dispensing systems, the design and installation of LNG engine fuel systems on vehicles of all types and their associated fueling facilities, and the construction and operation of equipment for the storage, handling, and transportation of LNG. These standards do not apply to locomotives, railcar tenders, marine terminals, or to the

transportation, loading, or unloading of LNG on ships, barges, or other types of watercraft, or to any fuel cell approved by the Federal Aviation Administration and intended to be used solely as a fuel cell for aircraft, including hot air balloons, or to an installation or connection that is part of a distribution or pipeline system that is covered by Title 49, Code of Federal Regulations, Part 192. From the point at which LNG in a system has been vaporized and converted to compressed natural gas (CNG), the equipment and components must comply with the Commission's Regulations for Compressed Natural Gas.

- (b) If any term, clause, or provision of these rules is for any reason declared invalid, the remainder of the provisions shall remain in full force and effect, and shall in no way be affected, impaired, or invalidated.
- (c) Nothing in these rules shall be construed as requiring, allowing, or approving the unlicensed practice of engineering or any other professional occupation requiring licensure.
- (d) Unless otherwise stated, the Regulations for Liquefied Natural Gas are not retroactive; however, the Railroad Commission of Texas has jurisdiction over all LNG installations in Texas and installations placed into operation after October 1, 1996, shall comply with these regulations. All other LNG installations in operation prior to October 1, 1996, shall be maintained and operated in a safe manner as determined by the Railroad Commission of Texas. Persons engaged in LNG activities on the effective date of these rules shall comply with licensing and examination requirements by February 1, 1997.
- (e) The requirements of 16 TAC Chapter 14 shall not apply to vehicles and fuel supply containers that:
  - (1) are manufactured or installed by original equipment manufacturers;
  - (2) comply with Title 49, Code of Federal Regulations, the Federal Motor Vehicle Safety Standards; and
  - (3) comply with the National Fire Protection Association (NFPA) Code 57, Liquefied Natural Gas (LNG) Fuel Systems Code .
- (f) Vehicles and fuel supply containers excluded from the requirements of this chapter pursuant to subsection (e) of this section shall comply with the requirements of §14.2046 of this title, relating to Filings Required for School Bus, Mass Transit and Special Transit Vehicles.

#### **§14.2007 Definitions**

The following words and terms when used in the Regulations for Liquefied Natural Gas shall have the following meanings unless the context clearly indicates otherwise.

- (1) Administrative Procedure Act--Texas Government Code, Chapter 2001.
- (2) Aggregate water capacity--The sum of all individual container capacities as measured by weight or volume of water when the containers in a battery at an installation are full.
- (3) ANSI--American National Standards Institute.
- (4) API--American Petroleum Institute.
- (5) Approved--Authorized by the Division or the Commission.
- (6) ASME--American Society of Mechanical Engineers.
- (7) ASME Code--The American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section I, Section IV, Section VIII, and Section IX.



- (8) Automatic fuel dispenser--A fuel dispenser which requires transaction authorization.
- (9) Branch manager--See "Operations supervisor."
- (10) Certified--Authorized to perform LNG activities under the direction of a licensee as set forth in the Texas Natural Resources Code. Certification alone does not allow an employee to perform those activities which require licensing.
- (11) Combustible material--A solid material which, in the form in which it is used and under the conditions anticipated, can be ignited and will burn, support combustion, or release flammable vapors when subjected to fire or heat.
- (12) Commercial installation--An LNG equipment installation located on premises other than a single-family dwelling used primarily as a residence.
- (13) Commission--The Railroad Commission of Texas or an operating division of the Commission or a division's employees.
- (14) Company representative--An owner or employee of a licensee designated by that licensee to take any required courses and exams and to actively supervise LNG operations of the licensee.
- (15) Container--Any LNG vessel manufactured to the applicable sections of the API Code, ASME Code, or DOT requirements in effect at the time of manufacture.
- (16) Container appurtenances--Components installed in container openings, including but not limited to pressure relief devices, shutoff valves, backflow check valves, excess flow check valves, internal valves, liquid level gauges, pressure gauges, and plugs.
- (17) Conversion--The changes made to a vehicle to allow it to use LNG as a motor fuel.
- (18) Design pressure--The pressure for which a system or portion of that system is designed.
- (19) Dike--A structure used to establish an impounding area.
- (20) Dispensing system--That combination of valves, meters, hoses, piping, electrical connections, and fuel connections used to distribute LNG to mobile or motor fuel containers.
- (21) Division--The Director of the Gas Services Division of the Railroad Commission of Texas or the director's delegate.
- (22) DOT--The United States Department of Transportation.
- (23) Employee--Any individual who renders or performs any services or labor for compensation, including individuals hired on a part-time or temporary basis, full-time or permanent basis; independent contractors; and owner-employees.
- (24) Failsafe--Design features which provide for safe conditions in the event of a malfunction of control devices or an interruption of an energy source or an emergency shutdown.
- (25) Final approval--The authority issued by the Commission or the Railroad Commission allowing the introduction of LNG into a container and system.
- (26) Fired equipment--Any equipment in which the combustion of fuels takes place.
- (27) Fixed-length dip tube--A pipe with a fixed open end positioned inside a container at a designated elevation to measure a liquid level.
- (28) General Rules of Practice and Procedure of the Railroad Commission of Texas--Chapter 1 of this title (relating to Practice and Procedure).

- (29) Ignition source--Any item, substance, or event having adequate temperature and energy release of the type and magnitude sufficient to ignite any flammable mixture of gases or vapors that could occur at a site.
- (30) Impounding area--An area defined through the use of dikes or the topography at the site for the purpose of containing any accidental spill of LNG.
- (31) Individual--One human being. (See also "Person".)
- (32) Interim approval--The authority issued by the Railroad Commission of Texas following a public hearing allowing construction of an LNG installation.
- (33) Labeled--The attachment to equipment or materials of a label, symbol, or other identifying mark of a nationally recognized testing laboratory or a Category 50 licensee which conducts product evaluation, periodically inspects production of listed equipment or materials, and which publishes its findings in a list indicating that the equipment either meets appropriate standards or has been tested and found suitable for use in a specified manner.
- (34) LFL--Lower flammability limit.
- (35) Licensed--Authorized to perform LNG activities through the issuance of a valid license by the Commission.
- (36) Licensee--A person which has applied for and been granted an LNG license by the commission.
- (37) Listed--The inclusion of equipment or materials in a list published by a nationally recognized testing laboratory or a Category 50 licensee which conducts product evaluation, periodically inspects production of listed equipment or materials, and whose listing states either that the equipment or material meets appropriate standards or has been tested and found suitable for use in a specified manner.
- (38) LNG--Natural gas, consisting primarily of methane, that has been condensed to liquid by cooling.
- (39) LNG system--A system of safety devices, containers, and other LNG equipment installed at a facility or on a vehicle and designed for use in the sale, storage, transportation for delivery, or distribution of LNG.
- (40) LNG transport--Any vehicle or combination of vehicles and LNG containers designed or adapted for use or used principally as a means of moving or delivering LNG from one place to another, including but not limited to any truck, trailer, semi-trailer, cargo tank, or other vehicle used in the distribution of LNG.
- (41) Mass transit vehicle--Any vehicle which is owned or operated by a political subdivision of a state, city, or county, and which is used primarily in the conveyance of the general public.
- (42) Maximum allowable working pressure--The maximum gauge pressure permissible at the top of completed equipment, containers, or vessels in their operating position for a design temperature.
- (43) Mobile fuel container--An LNG container mounted on a vehicle and used to store LNG as the fuel supply for uses other than motor fuel.
- (44) Mobile fuel system--An LNG system to supply fuel to an auxiliary engine other than the engine used to propel the vehicle or for other uses on the vehicle.
- (45) Motor fuel container--An LNG container mounted on a vehicle and used to store LNG as the fuel supply to an engine used to propel the vehicle.

- (46) Motor fuel system--An LNG system to supply LNG as a fuel for an engine used to propel the vehicle.
- (47) NEC--National Electric Code (NFPA 70).
- (48) NFPA--National Fire Protection Association.
- (49) Noncombustible material--A solid material which in no conceivable form or combination with other material will ignite.
- (50) Nonlicensee--A person not required to be licensed, but which shall comply with all other applicable Regulations for Liquefied Natural Gas.
- (51) Operations supervisor--An individual who actively supervises LNG operations at an outlet.
- (52) Outlet--A site operated by an LNG licensee at which the business conducted materially duplicates the operation for which the licensee is initially granted a license.
- (53) Person--An individual, sole proprietor, partnership, firm, joint venture, corporation, association, or any other business entity, state agency or institution, county, municipality, school district, or other governmental subdivision.
- (54) Point of transfer--The point at which a connection is made to transfer LNG from one container to another.
- (55) Pressure relief valve--A valve which is designed both to open automatically to prevent a continued rise of internal fluid pressure in excess of a specified value (set pressure) and to close when the internal fluid pressure is reduced below the set pressure.
- (56) Pressure vessel--A container or other component designed in accordance with the ASME Code.
- (57) Primary component--Those safety-related components which may be stressed to a significant level, those whose failure would permit release of flammable fluids, and those subject to thermal shock. Primary components include but are not limited to the following parts of a single-wall tank or of the inner tank in a double-wall tank: seals, gaskets, shell plates, bottom plates, roof plates, knuckle plates, compression rings, shell stiffeners, manways, and nozzles including reinforcement, shell anchors, pipe, tubing, forging, and bolting.
- (58) Property line--That boundary which designates the point at which one real property interest ends and another begins. (See also "Right-of-way".)
- (59) PSF--Pounds per square foot.
- (60) PSI--Pounds per square inch.
- (61) PSIG--Pounds per square inch gauge.
- (62) PSIA--Pounds per square inch absolute.
- (63) Public transportation vehicle--A vehicle for hire or service to the general public including but not limited to taxis, buses, and airport courtesy cars.
- (64) Railroad Commission of Texas--The members of the Railroad Commission of Texas.
- (65) Repair to container--The correction of damage or deterioration to an LNG container, the alteration of the structure of such a container, or the welding on such a container in a manner which causes the temperature of the container to rise above 400 degrees Fahrenheit.
- (66) Right-of-way--The strip of land over which a public roadway such as a street, alley, or highway is built, or land occupied by a railroad for its main line.

- (67) School--A public or private institution which has been accredited through the Texas Education Agency or the Texas Private School Accreditation Commission.
- (68) School bus--A vehicle that is sold or used for purposes that include carrying students to and from school or related events.
- (69) Special transit vehicle--A vehicle which is primarily used by a school or mass transit authority for special transit purposes such as transport of mobility impaired individuals.
- (70) TEMA--Tubular Exchanger Manufacturers Association.
- (71) Temporary installation--A dispensing station, either skid-mounted or on a transport unit, that is intended to be used for a finite period of time.
- (72) Tentative approval--The authority issued by the Commission without a hearing allowing construction of an LNG installation.
- (73) Thermal expansion relief valve--A pressure relief valve that is activated by pressure created by a fluid temperature rise.
- (74) Trainee--An individual employed by a licensee for a period not to exceed 45 days without that individual having successfully completed the required examinations for the LNG activities to be performed.
- (75) Transfer area--That portion of an LNG refueling station where LNG is introduced into or dispensed from a stationary installation.
- (76) Transfer system--All piping and equipment used in transferring LNG between containers.
- (77) Transition joint--A connector fabricated of two or more metals used to join piping sections of two different materials.
- (78) Transport--Any bobtail or semi-trailer equipped with one or more containers.
- (79) Transport system--Any and all piping, fittings, valves, and equipment on a transport, excluding the container.
- (80) Ultimate consumer--The person controlling LNG immediately prior to its ignition.
- (81) Vaporizer--A device other than a container that receives LNG in liquid form and adds sufficient heat to convert the liquid to a gaseous state.
- (82) Water capacity--The amount of water in gallons required to fill a container.

#### **§14.2010 LNG Report Forms**

Under the provisions of the Texas Natural Resources Code, Chapter 116, the Commission has designated the following forms for use by the division.

- (1) LNG Form 2001. Application for License.
- (2) LNG Form 2001A. Branch Outlet List.
- (3) LNG Form 2003. Liquefied Natural Gas License.
- (4) LNG Form 2004. Liquefied Natural Gas Transport Vehicle Identification.
- (5) LNG Form 2005. Manufacturer's Data Report.
- (6) LNG Form 2007. Liquefied Natural Gas Truck Registration.
- (7) LNG Form 2008. Manufacturer's Report of Pressure Vessel Repair, Modification, or Testing.

- (8) LNG Form 2016. Application for Examination.
- (9) LNG Form 2016A. Certified Employee Transfer Certification.
- (10) LNG Form 2018. Statement of Lost or Destroyed License.
- (11) LNG Form 2018B. Statement of Lost or Destroyed LNG Form 2004.
- (12) LNG Form 2019. Transfer of Liquefied Natural Gas Bulk Storage Plants.
- (13) LNG Form 2020. Report of LNG Incident/Accident.
- (14) LNG Form 2021. Notice of Intent to Appear.
- (15) LNG Form 2023. Statement in Lieu of Container Testing.
- (16) LNG Form 2025. Application and Notice of Exception to the Regulations for Liquefied Natural Gas.
- (17) LNG Form 2026. Franchise Tax Certification.
- (18) LNG Form 2027A. Application for Qualification as Self-Insurer, Motor Vehicle Liability.
- (19) LNG Form 2027B. Application for Qualification as Self-Insurer, General Liability.
- (20) LNG Form 2028. Application to Use Irrevocable Letter of Credit.
- (21) LNG Form 2500. Application for Installation.
- (22) LNG Form 2500A. Notice of Proposed LNG Installation.
- (23) LNG Form 2501. Completion Report for Commercial Installations of Less Than 15,540 Gallons Aggregate Capacity.
- (24) LNG Form 2503. Application to Install an LNG System on School Bus, Mass Transit, or Special Transit Vehicles.
- (25) LNG Form 2504. Notice of Subsequent Installation or Conversion.
- (26) LNG Form 2505. Testing Procedures Certification.
- (27) LNG Form 2995. Certification of Political Subdivision of Self-Insurance for General Liability, Workers' Compensation, and/or Motor Vehicle Liability Insurance.
- (28) LNG Form 2996A. Certificate of Insurance, Workers' Compensation and Employer's Liability or Alternative Accident/Health Insurance.
- (29) LNG Form 2996B. Statement in Lieu of Filing Certifying Workers' Compensation Coverage, Including Employer's Liability Insurance or Alternative Accident/Health Insurance.
- (30) LNG Form 2997A. Certificate of Insurance, Motor Vehicle Bodily Injury, and Property Damage Liability.
- (31) LNG Form 2997B. Statement in Lieu of Motor Vehicle Bodily Injury, and Property Damage Liability Insurance.
- (32) LNG Form 2998A. Certificate of Insurance, General Liability.
- (33) LNG Form 2998B. Statement in Lieu of General Liability Insurance and/or Completed Operations and Products Liability Insurance.

#### **§14.2013 Licenses and Related Fees**

- (a) A prospective licensee may apply to the commission for one or more licenses specified in subsection (b)(1) - (8) of this section. Fees required to be paid shall be those established by the commission and in effect at the time of licensing or renewal.
- (b) The license categories and fees are as follows:
  - (1) A Category 15 license for container manufacturers and/or fabricators authorizes the manufacture, fabrication, assembly, repair, installation, testing, and sale of LNG containers, including LNG motor or mobile fuel containers and systems, and the repair of transport and transfer systems for use in Texas. The original license fee is \$1,000; the renewal fee is \$600.
  - (2) A Category 20 license for transport outfitters authorizes the subframing, testing, and sale of LNG transport containers; the testing of LNG storage containers; the installation, testing, and sale of LNG motor or mobile fuel containers and systems; and the installation and repair of transport systems and motor or mobile fuel systems for use in Texas. The original license fee is \$400; the renewal fee is \$200.
  - (3) A Category 25 license for carriers authorizes the transportation of LNG by transport, including the loading and unloading of LNG. The original license fee is \$1,000; the renewal fee is \$300.
  - (4) A Category 30 license for general installers and repairmen authorizes the sale, repair, service, and installation of stationary containers and LNG systems. The original license fee is \$100; the renewal fee is \$70.
  - (5) A Category 35 license for retail and wholesale dealers authorizes the storage, sale, transportation, and distribution of LNG and all other activities included in this section, except the manufacture, fabrication, assembly, repair, subframing, and testing of LNG containers. The original license fee is \$750; the renewal fee is \$300.
  - (6) A Category 40 license for general public dispensing stations authorizes the storage, sale, and dispensing of LNG into motor and mobile fuel containers. The original license fee is \$150; the renewal fee is \$70.
  - (7) A Category 45 license for motor fuel authorizes the sale and installation of LNG motor or mobile fuel containers, and the sale, repair, and installation of LNG motor or mobile fuel systems. The original license fee is \$100; the renewal fee is \$50.
  - (8) A Category 50 license for testing laboratories authorizes the testing of LNG containers, LNG motor fuel systems or mobile fuel systems, transfer systems, and transport systems for the purpose of determining the safety of the containers or systems for LNG service, including the necessary installation, disconnection, reconnection, testing, and repair of LNG motor fuel systems or mobile fuel systems, transfer systems, and transport systems involved in the testing of containers. The original license fee is \$200; the renewal fee is \$100.
- (c) An original manufacturer of a new motor vehicle powered by LNG, or a subcontractor of a manufacturer who produces a new LNG powered motor vehicle for the manufacturer, is not subject to the licensing requirements of this title, but shall comply with all other Regulations for Liquefied Natural Gas.
- (d) Public or private entities performing LNG activities for their own vehicles are not required to be licensed. Public or private entities performing any LNG activities for the general public are required to be licensed.

## **§14.2016 Licensing Requirements**

- (a) Applicants for a license or license renewal shall file with the Commission LNG Form 2001 designating a company representative who shall be an owner or employee of the licensee, and shall be directly responsible for actively supervising LNG operations of the licensee. A licensee may have more than one company representative.
  - (1) An applicant for license shall not engage in LNG activities until its company representative has successfully completed the management examination administered by the Commission.
  - (2) The licensee shall notify the commission in writing upon termination of its company representative and shall at the same time designate a replacement by submitting a new LNG Form 2001.
  - (3) The licensee shall cease LNG activities if, at the termination of its company representative, there is no other qualified company representative of the licensee acknowledged and recorded by the commission. The licensee shall not resume operation until such time as it has a qualified company representative, unless it has been granted an extension of time in which to comply as specified in §14.2052 of this title (relating to Application for an Exception to a Safety Rule).
- (b) Licenses issued under this chapter expire one year after issuance at midnight on the last day of the month prior to the month in which they are issued.
- (c) Persons engaged in LNG activities, including licensees and non-licensees, shall maintain a copy of the current version of the Regulations for Liquefied Natural Gas adopted by the Commission and shall provide at least one copy to each company representative and operations supervisor. The copies shall be available to employees during business hours.
- (d) Licensees and operations supervisors at each outlet shall have all current licenses and certificates available for inspection during regular business hours.
- (e) In addition to complying with other licensing requirements set out in the Texas Natural Resources Code and the Regulations for Liquefied Natural Gas, applicants for license or license renewal in the following categories shall comply with the specified additional requirements:
  - (1) A Category 15 licensee shall file with the commission for each of its outlets legible copies of:
    - (A) its current DOT authorization. A licensee may not continue to operate after the expiration date of the DOT authorization; and
    - (B) its current ASME Code, Section VIII certificate of authorization. If ASME is unable to issue a renewed certificate of authorization prior to the expiration date, the licensee may request in writing an extension of time from the commission not to exceed 60 calendar days past the expiration date. The licensee's request for extension shall be received by the commission prior to the expiration date of the ASME certificate of authorization and shall include a letter or statement from ASME that ASME is unable to issue the renewal certificate of authorization prior to expiration and that a temporary extension will be granted for its purposes. A licensee shall not continue to operate after the expiration date of an ASME certificate of authorization until the licensee files a current ASME certificate of authorization with the commission, or the commission grants a temporary extension.
  - (2) A Category 15 or 20 licensee making repairs on ASME containers shall file with the commission a legible copy of its current "U" certificate of authorization for the repair of ASME containers by the National Board of Boiler and Pressure Vessel Inspectors.

- (3) A Category 15, 20, or 50 licensee shall file a properly completed LNG Form 2505 with the Commission, certifying that the applicant will follow the testing procedures indicated. The LNG Form 2505 shall be signed by the company representative designated on LNG Form 2001.
- (f) For license renewals, the Commission shall notify the licensee in writing at the address on file with the Commission of the impending license expiration at least 30 calendar days prior to the expiration date. Renewals shall be submitted to the Commission along with the license renewal fee specified in §14.2013 of this title (relating to Licenses and Related Fees) on or before the last day of the month in which the license expires renewal date in order for the licensee to continue LNG activities. Failure to meet the renewal deadline shall result in expiration of the license. If a person's license expires, that person shall immediately cease performance of any LNG activities authorized by that license.
- (1) If a person's license has been expired for 90 calendar days or fewer, the person shall submit a renewal fee that is equal to 1 1/2 times the renewal fee required in §14.2013 of this title (relating to Licenses and Related Fees). Upon receipt of the renewal fee, the Commission shall verify that the person's license has not been suspended, revoked, or expired for more than one year. After verification, if the licensee has met all other requirements for licensing, the Commission shall renew the license, and the person may resume LNG activities authorized by the license.
- (2) If a person's license has been expired for more than 90 calendar days but less than one year, the person shall submit a renewal fee that is equal to two times the renewal fee required in §14.2013 of this title (relating to Licenses and Related Fees). Upon receipt of the renewal fee, the Commission shall verify that the person's license has not been suspended, revoked, or expired for more than one year. After verification, if the person has met all other requirements for licensing, the Commission shall renew the license, and the person may resume LNG activities authorized by the license.
- (3) If a person's license has been expired for one year or longer, that person may not renew, but shall comply with the requirements for issuance of an original license.
- (4) A person who was licensed in this state, moved to another state, and is currently licensed and has been in practice in the other state for the two years preceding the date of application, may obtain a new license without reexamination. The person shall pay to the Commission a fee that is equal to two times the renewal fee required by §14.2013 of this title (relating to Licenses and Related Fees).
- (A) As a prerequisite to licensing pursuant to this provision, the person shall submit, in addition to an application for licensing, proof of having been in practice and licensed in good standing in another state continuously for the two years immediately preceding the filing of the application;
- (B) A person licensed under this provision shall be required to comply with all requirements of licensing other than the examination requirement, including but not limited to the insurance requirements as specified in §14.2031 of this title (relating to Insurance Requirements).

#### **§14.2019 Certification Requirements**

- (a) This section applies to all licensees and their employees who perform LNG activities, and to any ultimate consumer who has purchased, leased, or obtained other rights in any vessel defined by



this chapter as an LNG transport, including any employee of such ultimate consumer if that employee drives or in any way operates such an LNG transport. Only paragraph (2) of this subsection applies to an employee of a state agency or institution, county, municipality, school district, or other governmental subdivision. Driving a motor vehicle powered by LNG or fueling of motor vehicles for an ultimate consumer by the ultimate consumer or its employees do not in themselves constitute LNG activities.

- (1) No individual may work or be employed in any capacity which requires contact with LNG or LNG systems until that individual has submitted to and passed a commission examination measuring the competence of that individual to perform the LNG activities anticipated and the individual's working knowledge of the Texas Natural Resources Code and the Regulations for Liquefied Natural Gas related to the type of LNG work anticipated. Table 1 of this section specifies which requirements, indicated with an asterisk, apply to each category of license.
- (2) Employees of an ultimate consumer not required to submit to examination under this section shall be properly trained by an individual who passed the examination in the installation, maintenance, and storage of LNG, LNG systems, and vehicles fueled by LNG, and in the operation of equipment during the filling of and dispensing from storage containers. Such training shall also include the protection of containers and equipment against damage or tampering by unauthorized persons.

**TABLE 1**  
**Categories of Licenses**

	15	20	25	30	35	40	45	50
Company Representative Management Exam	*	*	*	*	*	*	*	*
Operations Supervisor (Branch Manager) Management Exam	*	*	*	*	*	*	*	*
Employee Level - Service & Installation (including Transport Driver and Motor Fuel Dispenser) Exam			*	*	*	*		
Employee Level – Transport Driver Exam			*		*			
Employee Level - Engine Fuel Exam					*		*	*
Employee Level - Service & Installation Exam				*	*			
Employee Level - Motor/Mobile Fuel Dispenser Exam					*	*	*	
File LNG Form 2016	*	*	*	*	*	*	*	*
File LNG Form 2016B					*			
Category 35 Course of Instruction					*			

- (3) An individual wishing to submit to examination by the commission shall file LNG Form 2016 along with the appropriate fee listed in subsection (c) of this section with the commission

prior to examination. The commission shall notify the individual in writing of acceptance of LNG Form 2016.

- (4) An individual who has filed LNG Form 2016 and the applicable nonrefundable examination fee may take the rules examination at the Commission's Austin office between the hours of 8:00 a.m. and 2:00 p.m., Monday through Friday, except for state holidays, and at other designated times and locations around the state. Applicants who wish to take the rules examination at sites other than the Austin office shall submit LNG Form 2016 and the applicable fee to the Commission's Austin office at least three business days prior to the examination date in order to receive an admittance letter from the Commission. The admittance letter shall be required at all exam sites other than the Austin office.
- (5) Within 30 days of the date an individual takes an examination, the Commission shall notify the individual of the results of the examination. The individual shall pass the rules examination with a score of at least 75%.
  - (A) If the examination is graded or reviewed by a testing service, the Commission shall notify the individual of the examination results within 14 days of the date the Commission receives the results from the testing service. If the notice of the examination results will be delayed for longer than 90 days after the examination date, the Commission shall notify the individual of the reason for the delay before the 90th day. The Commission may require a testing service to notify an individual of the individual's examination results.
  - (B) Successful completion of any required examination shall be credited to the individual.
  - (C) Any individual who fails an examination shall be immediately disqualified from performing any LNG activities covered by that examination and shall not retake the same examination for at least 24 hours, unless approved by the assistant director for the LP-Gas Section, Gas Services Division, or another designated Commission employee. If requested in writing by an individual who failed the examination, the Commission shall furnish the individual with an analysis of the individual's performance on the examination.
- (b) A licensee or ultimate consumer other than a political subdivision may employ an individual as a trainee for a period not to exceed 45 calendar days without that individual having successfully completed the rules examination, subject to the following conditions:
  - (1) The trainee shall be directly and individually supervised at all times by an individual who has successfully completed the rules examination for those areas of work being performed by the trainee.
  - (2) The licensee or ultimate consumer other than a political subdivision shall ensure that LNG Form 2016 is on file with the Commission for each trainee at the time the trainee begins supervised LNG activities. The trainee shall then have 45 calendar days to pass the applicable rules examination.
  - (3) A trainee who fails the rules examination shall cease to perform any LNG activities covered by the examination failed.
  - (4) A trainee who has been in training for a total of 45 days in any combination and with any number of employers shall cease to perform any LNG activities for which the trainee is not currently certified.
  - (5) Once a trainee has taken the rules examination, the training period shall cease and the individual shall perform no LNG activities which require certification until the individual is notified by the Commission that the individual passed the examination.

- (c) The applicant shall pay to the commission a \$50 examination fee for each management-level examination and a \$20 fee for each employee-level examination in advance of each required examination. Examination fees are nonrefundable. An applicant who fails an examination shall pay the full examination fee for each subsequent examination.
- (d) The Commission shall notify licensees of any employees' pending renewals, or shall notify the individual if not employed by a licensee, in writing, at the address on file with the Commission no later than March 15 of a year for the May 31 renewal date of that year. To maintain active status, a certificate holder shall pay the \$25 annual renewal fee to the Commission on or before May 31 of each year. Individuals who hold more than one certificate shall pay only one annual renewal fee.
  - (1) Failure to pay the annual renewal fee by the renewal deadline shall result in a lapse of certification unless the late filing fee in paragraph (2) of this subsection is paid. If an individual's certification has been expired for one year or longer, that individual shall comply with the requirements of subsection (a) of this section. If an individual's certification lapses or expires, that individual shall immediately cease performance of any LNG activities that require certification. An individual may regain certified status only by successfully completing the examination required for the certification and meeting the requirements of paragraph (2) of this section.
  - (2) Any lapsed or expired renewals submitted after May 31 of each year shall include a \$20 late-filing fee in addition to the renewal fee and proof of successful completion of the examination required for the certification no later than close of business on August 31 or, if August 31 falls on a weekend or state holiday, close of business on the last business day before August 31. Upon receipt of the renewal fee, late-filing penalty, and proof of successful completion of the examination required for the certification, the Commission shall verify that the individual's certification has not been suspended, revoked, or expired for one year or longer. After verification, the Commission shall renew the certification and the individual may resume LNG activities.
- (e) Expired certifications. Any renewal submitted after the August 31 deadline shall be considered expired. If an individual wishes to renew a certification that has been expired for less than one year, that individual shall submit the annual renewal fee and late filing fee, and proof of successful completion of the examination required for certification. Upon verification that the individual's certificate has not been suspended, revoked, or expired for one year or longer, the Commission shall renew the individual's certification and the individual may resume LNG activities.
- (f) Applicants for license shall attend the applicable courses of instruction as specified in Table 1 of subsection (a) of this section. The Category 35 course of instruction shall be held in Austin or any Commission-approved facility at times to be determined by the Commission, shall include at a minimum training over container installation, refueling facilities, motor fuel installations, and stationary installations, and shall not exceed 40 hours. Course attendees shall pay the fee to the Commission for the course. The fee shall be established by the division director and may vary as needed to cover the costs for a particular seminar in any given location. The seminar fee does not include the required examination fee.

#### **§14.2020 Employee Transfers**

When a previously certified individual is hired, the licensee shall notify the Commission by filing a properly completed and signed LNG Form 2016A along with a \$10 filing fee, which shall be received

by the Commission or postmarked within ten calendar days of such hiring. Notice shall include the employee's name as recorded on a current driver's license or Texas Department of Public Safety identification card, employee social security number, name of previous licensee-employer, and LNG related work to be performed.

#### **§14.2021 LNG Continuing Education Requirements**

- (a) The continuing education requirements in this section apply only to an individual holding an LNG license and to an individual who is an LNG licensee's representative, as the term "representative" is defined in §14.2007(14) of this title (relating to Definitions).
- (b) Successful completion of the continuing education requirements shall be credited to and accrue to only an individual holding an LNG license and to an LNG licensee's representative.
- (c) An individual who attends an LNG continuing education course shall receive credit only if the individual attends the entire course.
- (d) LNG continuing education courses shall be available two times per year at the Commission's LP-Gas Section in Austin. The LNG continuing education courses shall be available one day in April and one day in September. The exact date and time of the courses will be posted on the Commission's web site at least 30 days prior to the date of the course.
- (e) The Commission shall offer the LNG continuing education course at no charge to individuals holding an LNG license and to LNG licensee company representatives.
- (f) Once every four years, each individual holding an LNG license and each LNG licensee representative shall attend and complete a course that is administered by the Commission.
  - (1) The LP-Gas Section shall determine the course content which shall include the Commission's adopted rules and regulations, and safety procedures for handling LNG.
  - (2) The course shall be four hours in length and shall be administered by LP-Gas Section field inspectors.
- (g) Each individual holding an LNG license and each LNG licensee representative who is licensed as of the effective date of this rule shall attend and complete a course offered by the Commission no later than October 1, 2004. Each individual holding an LNG license and each LNG licensee representative who is licensed after the effective date of this rule shall attend and complete a course within four years from the date his or her license becomes active.
- (h) Each individual holding an LNG license and each LNG licensee representative who fails to complete a course under the requirements of this rule shall not be allowed to renew his or her license until that individual completes an LNG continuing education course given by the Commission.

#### **§14.2022 Denial, Suspension, or Revocation of Licenses or Certifications, and Hearing Procedure**

- (a) The Commission may deny, suspend, or revoke a license or certificate for any individual who fails to comply with the requirements of this chapter. If the Commission determines that an applicant for a new license or certificate, or renewal of a license or certificate has not met the requirements of this chapter, the Commission shall notify the applicant in writing of the reasons for the proposed denial. In the case of an applicant for license or certificate, the notice shall advise the applicant:

- (1) that the application may be resubmitted within 30 calendar days of receipt of the denial, with all cited deficiencies corrected. If an applicant resubmits the application for a new license or certificate, or renewal of a license or certificate within 30 calendar days of receipt of the denial with all deficiencies corrected, the Commission shall issue the new license or certificate, or the renewal of the license or certificate; or
  - (2) if the applicant disagrees with the Commission's determination, the applicant may request a hearing in writing within 30 calendar days of receiving the notice of denial.
- (b) An applicant receiving a notice of denial of a license, certificate, or license or certificate renewal may request a hearing to determine whether the applicant did comply in all respects with the requirements for the category or categories of license or certification sought.
  - (1) Upon receipt of a written request for hearing, the Commission shall schedule a hearing within 30 days following the receipt of the request for hearing to determine the applicant's compliance or noncompliance with the licensing or certification requirements for each category of license or certification sought. The Commission shall conduct the hearing in compliance with the Texas Government Code, Chapter 2001, the general rules of practice and procedure of the Railroad Commission of Texas in Chapter 1 of this title (relating to Practice and Procedure), and any other applicable rules.
  - (2) If, after hearing, the Commission finds that the licensee or certified individual may not comply within the specified time, the Railroad Commission of Texas may enter an order calling a public hearing to be conducted in compliance with the Texas Government Code, Chapter 2001, the general rules of practice and procedure of the Railroad Commission of Texas in Chapter 1 of this title (relating to Practice and Procedure), and any other applicable rules.
- (c) If the Commission finds through means including but not limited to inspection, review of documents, or complaint by a member of the general public or any other person, that a license or certificate shall be suspended or revoked because of a probable or actual violation of or noncompliance with Chapter 116 of the Texas Natural Resources Code or the Regulations for Liquefied Natural Gas, the Commission shall notify the licensee or certified individual in writing of the alleged violation or noncompliance.
  - (1) The notice shall specify the acts, omissions, or conduct constituting the alleged violation or noncompliance, and shall designate a date at least 30 days but less than 45 days after the licensee or certified individual receives the notice by which the violation or noncompliance shall be corrected or discontinued. If the Commission determines the violation or noncompliance may pose imminent peril to the health, safety, or welfare of the general public, the Commission may notify the licensee or certified individual orally with instruction to immediately cease the violation or noncompliance. When oral notice is given, the Commission shall follow it with written notification no later than five days after the oral notice.
  - (2) The licensee or certified individual shall either report the correction or discontinuance of the violation or noncompliance within the time frame specified in the notice or request in writing an extension of time in which to comply. The request for extension of the time to comply shall be received by the Commission within the same time frame specified in the notice for correction or discontinuance.

#### **§14.2025 Designation of Outlet and Operations Supervisor (Branch Manager)**

- (a) The Commission shall designate whether a site is an outlet for the purpose of this chapter. Criteria used by the Commission in determining the designation of an outlet include but are not limited to:
  - (1) distance from other LNG activities operated by the licensee;
  - (2) whether the operation duplicates the primary LNG operation; and
  - (3) whether the operation is directly supervised on a routine basis.
- (b) A licensee maintaining more than one outlet shall file LNG Form 2001A with the Commission designating an operations supervisor (branch manager) at each outlet. The operations supervisor shall pass the management examination administered by the Commission before commencing or continuing the licensee's operations at the outlet.
- (c) An operations supervisor may be a company representative of the licensee; however, an individual may be designated as an operations supervisor at only one outlet unless approved by the Commission.
- (d) The operations supervisor shall be directly responsible for actively supervising LNG operations of the licensee at the designated outlet.

#### **§14.2028 Franchise Tax Certification and Assumed Name Certificates**

- (a) Corporations or limited liability companies applying for an original or renewal license shall file LNG Form 2026 with the Commission prior to the issuance of such license certifying that its Texas franchise taxes are either current or are not applicable to the company. An applicant may file a Certificate of Account Status issued by the office of the Comptroller of Public Accounts with the Commission as an alternative to filing the LNG Form 2026. Making a false statement as to franchise tax status is grounds for denial, suspension, or revocation of the license granted by the Commission.
- (b) Any applicant for license shall list all names on LNG Form 2001 under which LNG activities requiring licensing are to be conducted. Any company performing LNG activities under an assumed ("doing business as" or "DBA") name shall file with the Commission copies of the assumed name certificates which are required to be filed with the respective county clerk's office and/or the Secretary of State's office.

#### **§14.2031 Insurance Requirements**

- (a) Pursuant to the Texas Natural Resources Code, Chapter 116, the Commission has adopted the minimum amounts of insurance for LNG licensees authorized by the State of Texas specified in Table 1 of this section.

Figure: 16 TAC §14.2031(a)

**TABLE 1**

<b>Category of License</b>	<b>Type of Coverage</b>	<b>Insurance Policy Endorsement Required</b>	<b>Form Required</b>	<b>Statement in Lieu of Required Insurance Filing</b>
All	Workers' Compensation, including Employer's Liability	WC42 06 01, Texas Notice of Material Change	LNG Form 2996A	LNG Form 2996B
All	Alternative to Workers' Compensation including Employer's Liability, or Accident/Health insurance coverage: Medical expenses in the principal amount of at least \$150,000; accidental death benefits in the principal amount of at least \$100,000; loss of limb or sight on a scale based on principal amount of at least \$100,000; loss of income based on at least 60% of employee's pre-injury income for not less than 52 weeks, subject to a maximum weekly wage calculated annually by the Texas Workforce Commission	N/A	LNG Form 2996A	N/A
30, 40, 45	General liability coverage including: premises and operations in an amount of at least \$25,000 per occurrence and \$50,000 aggregate	CG 02 05, Texas Changes Amendments or Coverage Change Endorsement	LNG Form 2998A	LNG Form 2998B
20, 25, 35, 50	Completed operations in an amount of at least \$300,000 aggregate	CG 02 05, Texas Changes Amendments or Coverage Change Endorsement	LNG Form 2998A	LNG Form 2998B
15, 25, 35	Product liability in an amount of at least \$300,000 aggregate	CG 02 05, Texas Changes Amendments or Coverage Change Endorsement	LNG Form 2998A	LNG Form 2998B
15, 20, 25, 35, 50	General liability coverage: premises and operations including completed operations in an amount of at least \$300,000 per occurrence with a \$300,000 policy aggregate	CG 02 05, Texas Changes Amendments or Coverage Change Endorsement	LNG Form 2998A	LNG Form 2998B
25, 35, Ultimate Consumer	Motor vehicle coverage: minimum \$5,000,000 (\$300,000 for state agencies) combined single limit for bodily injuries to or death of all individuals injured or killed in any one accident, and loss or damage to property of others in any one accident.	TE0202A, Cancellation Provision or Coverage Change Endorsement	LNG Form 2997A	LNG Form 2997B

- (b) A licensee or applicant for license shall file a valid certificate of insurance as proof of insurance before the Commission grants or renews a license.
- (1) Certificate of insurance shall be valid only when issued by an insurance carrier authorized to do business in Texas, or by a surplus lines insurer that meets the requirements of the Texas Insurance Code, article 1.14-2, and rules adopted by the Texas Department of Insurance under that article.
  - (2) Certificates of insurance filed with the Commission shall have one of the endorsements specified in Table 1 of subsection (a) of this section attached to the policy. Endorsements may not be cancelled without cancellation of the attached policy.
  - (3) Certificates of insurance shall be continuous in duration and shall remain on file with the Commission during the entire period that the license is in effect.
  - (4) Documentation other than a certificate of insurance may be accepted by the Commission as evidence of required insurance provided that the documentation contains the same information as required on a certificate of insurance. The alternative documentation may be accepted for a period not to exceed 45 days. During the temporary period, a licensee shall file with the Commission an amended certificate of insurance which complies with the requirements of this section.
  - (5) Cancellation of a certificate of insurance becomes effective if:
    - (A) the Commission receives written notice stating the insurer's intent to cancel a policy of insurance and giving a minimum of 30 calendar days' notice before such cancellation;
    - (B) the Commission receives an acceptable replacement certificate of insurance;
    - (C) the licensee voluntarily surrenders a license and the rights and privileges conferred by the license;
    - (D) the Commission receives a statement made by the licensee stating that the licensee is not actively engaging in any operations which require a particular type of insurance and will not engage in those operations unless and until all certificates of insurance required for those operations are filed with the Commission; or
    - (E) the Railroad Commission of Texas issues an order following a hearing related to a certificate of insurance.
- (c) Each endorsement issued and attached to a certificate of insurance shall require the insurance carrier, noted as "company" on the certificate of insurance, to give the Commission 30 days' written notice before the insurance cancellation. The 30-day notice commences from the date the Commission receives the notice.
- (d) A licensee or applicant for a license that employs or contemplates employing any employees in LNG activities shall file LNG Form 2996A with the Commission. A licensee or applicant for a license that does not employ or contemplate employing any employees in LNG activities shall file LNG Form 2996B in lieu of a certificate of workers' compensation, including employers' liability insurance, or alternative accident and health insurance. The licensee or applicant for a license shall file the required insurance certificate and forms with the Commission before hiring any employee.
- (e) A Category 25 or 35 licensee or applicant for a license or ultimate consumer that operates or contemplates operating a motor vehicle equipped with an LNG transport container shall file LNG Form 2997A with the Commission. A Category 25 or 35 licensee or applicant for a license or ultimate consumer that does not operate or contemplate operating a motor vehicle equipped with



an LNG transport container or does not transport or contemplate transporting LNG by vehicle in any manner shall file LNG Form 2997B in lieu of a certificate of motor vehicle bodily injury and property damage insurance if this certificate is not otherwise required. The licensee or applicant for a license shall file the required insurance certificate and forms with the Commission before operating a motor vehicle equipped with an LNG cargo container or transporting LNG by vehicle in any manner.

- (f) A Category 15 licensee or applicant for a license that engages in or contemplates engaging in any LNG operations that would be covered by completed operations and product liability insurance shall file LNG Form 2998A with the Commission. A Category 15 licensee or applicant for a license that does not engage in or contemplate engaging in any LNG operations that would be covered by completed operations and product liability insurance shall file LNG Form 2998B in lieu of a certificate of completed operations and product liability insurance. The licensee or applicant for a license shall file the required insurance certificate and forms with the Commission before engaging in any operations that require completed operations and product liability insurance.
- (g) A licensee or applicant for a license that engages in or contemplates engaging in any operations that would be covered by general liability insurance shall file LNG Form 2998A with the Commission. A licensee or applicant for a license that does not engage in or contemplate engaging in any operations that would be covered by general liability insurance shall file LNG Form 2998B in lieu of a certificate of general liability insurance. The licensee or applicant for a license shall file the required insurance certificate and forms with the Commission before engaging in any operations that require general liability insurance.
- (h) Notwithstanding the requirements specified in Table 1 of subsection (a) of this section that each licensee carry a policy of workers' compensation insurance, the licensee may protect its employees by obtaining accident and health insurance coverage from an insurance company authorized to write such policies in Texas as an alternative to workers' compensation coverage. The alternative coverage shall be in the amounts specified in Table 1 of subsection (a) of this section.

#### **§14.2034 Self-Insurance Requirements**

- (a) This section applies to a licensee's general liability insurance, including premises and operations coverage. This section shall not apply to worker's compensation insurance, including employer's liability coverage.
- (b) A licensee applying for self-insurance shall file LNG Form 2027 with the Commission, along with materials which will allow the Commission to determine whether:
  - (1) the net worth of the applicant is adequate in relationship to the size of operations and the extent of its request for self-insurance authority. The applicant shall demonstrate that it will maintain a net worth sufficient to ensure that it will meet its statutory obligations to the public to pay all claims relating to general liability, including premises and operations coverage; and
  - (2) the applicant has a sound self-insurance program. The applicant shall demonstrate that it has established and shall maintain an insurance program that will protect the public against all claims involving LNG activities to the same extent as the minimum limits specified in Table 1 of §14.2031 of this title (relating to Insurance Requirements). Such a program may include but not be limited to one or more of the following: reserves; irrevocable letter of credit, as specified in subsection (h) of this section; sinking funds; third-party financial guarantees;

parent company or affiliate sureties; excess insurance coverage; or other similar arrangements.

- (c) The Commission may consider applications for approval of other securities or agreements, or may require any other information which may be necessary to ensure the application satisfies that the security or agreement offered will afford adequate security for protection of the public.
- (d) The Commission may approve a licensee's application for self-insurance if the licensee demonstrates to the Commission its ability to satisfy its obligations for the minimum insurance requirements specified in §14.2031 of this title (relating to Insurance Requirements). The Commission may approve the licensee as a self-insurer for a specific time period or for an indefinite period until further action is taken by the Commission.
- (e) The applicant shall file semi-annual reports and annual statements with the applicant's financial status and status of its self-insurance program with the Commission during the period of its self-insurer status by March 10 and September 10 of each year.
- (f) After ten days' notice to the applicant, the Commission may require the applicant to appear and demonstrate that it continues to have adequate financial resources to pay all general liability, including premises and operations coverage, claims, and that it remains in compliance with the other requirements of this section. If the applicant fails to do so, the Commission shall revoke its self-insurer status and may order that the licensee is ineligible for self-insurance in the future.
- (g) A state agency or institution, county, municipality, school district, or other governmental subdivision may meet the requirements for workers' compensation coverage or general liability and/or motor vehicle liability insurance by submitting LNG Form 2995 as evidence of self-insurance coverage if permitted by the state workers' compensation act, Texas Civil Statutes, Article 8308-1.01, et seq; Texas Civil Statutes, Articles 8309b, 8309d, 8309g, 8309g-1, and 8309h; and Texas Natural Resources Code, §116.036, by submitting LNG Form 2995 to the Commission.
- (h) Letters of credit filed with LNG Form 2028 shall:
  - (1) be issued by a federally chartered and federally insured bank authorized to do business in the United States;
  - (2) be irrevocable during their terms;
  - (3) be payable to the Commission in part or in full upon demand and receipt from the Commission of a notice of forfeiture; and
  - (4) not apply to the licensing requirements for worker's compensation insurance, including employer's liability coverage.

#### **§14.2037 Components of LNG Stationary Installations Not Specifically Covered**

Components of LNG stationary installations which are not specifically covered by the Regulations for Liquefied Natural Gas shall not be placed into LNG service until the Commission has determined the installation complies with the rules in this chapter. The Commission may require any change to a proposed stationary installation which the Commission may consider necessary to ensure the LNG installation is safe for LNG service. If the affected party disagrees with the Commission's determination, the party may request a hearing as described in §14.2022 of this title (relating to Denial, Suspension, or Revocation of Licenses or Certifications, and Hearing Procedure). However, the installation shall not be placed into LNG operation until the Commission has determined the installation complies with the rules in this chapter.

#### **§14.2040 Filings and Notice Requirements for Stationary LNG Installations**

- (a) No LNG container shall be placed into LNG service or an installation operated or used in LNG service until the requirements of this section, as applicable, are met and the facility is in compliance with all applicable rules in this chapter and all statutes, in addition to any applicable requirements of the municipality or the county where an installation is or will be located. A person who purchases an existing LNG installation shall file LNG Form 2019 with the Commission within 10 calendar days of the purchase in order for the installation to remain in LNG service.
- (b) Prior to the construction of a stationary installation which would result in an aggregate water capacity of 15,540 gallons or more, the applicant shall submit LNG Form 2500 and a non-refundable \$50 application fee to the Commission including site plans and plans and specifications for the installation at least 30 days prior to construction.
  - (1) Plans and specifications shall be sealed by a registered professional engineer licensed and in good standing to practice in the State of Texas and who is qualified in the area of the design and construction of LNG facilities.
  - (2) Plans and specifications shall include fire protection which complies with §14.2131 of this title (relating to Fire Protection).
  - (3) If the applicant modifies the plans and specifications before tentative or interim approval is granted by the Commission, the plans and specifications shall be resealed by a registered professional engineer licensed to practice in the State of Texas and resubmitted to the Commission. A non-refundable fee of \$30 shall be required for any resubmission.
- (c) Prior to the installation of an LNG container resulting in an aggregate water capacity of 15,540 gallons or more, the applicant or licensee shall send a copy of LNG Form 2500, LNG Form 2500A, and a plat by certified mail, return receipt requested, to all owners of real property situated within 500 feet of the proposed container location(s). The applicant or licensee shall submit LNG Form 2500 to the Commission at the same time LNG Form 2500 and LNG Form 2500A are mailed to the real property owners.
  - (1) Notice shall be considered sufficient when the applicant or licensee has provided evidence that a complete LNG Form 2500, LNG Form 2500A, and a plat have been sent to all real property owners. The applicant or licensee may obtain names and addresses of owners from current county tax rolls.
  - (2) The applicant or licensee shall notify owners of real property situated within 500 feet of the proposed container location(s) if the current aggregate water capacity of the installation is more than doubled in a 12-month period or if the resulting aggregate water capacity of the installation will be more than 214,348 gallons.
  - (3) The applicant or licensee shall retain the return receipts for Commission review, if requested.
  - (4) The site plan or drawing shall describe the facility's property or a 250-foot diameter (measured from the proposed container's location on the site), whichever is smaller, and include all containers, buildings, structures, geographical or topographical features, or any other features or activities relating to LNG which could affect the health, safety and welfare of the general public. The site plan or drawing shall include a scale or legend to indicate the distances or measurements described.

- (5) Objections shall be filed with the Commission within 18 days of the postmarked date on the notice letter. If the Commission finds that the objection is not proper, the Commission shall notify the property owner and the property owner shall have ten days from the date of the Commission's postmarked letter to correct the objection. If one or more of the adjoining property owners files an objection and a written request for a hearing with the Commission, the hearing shall be conducted as soon as possible and a recommendation presented to the Commission within 90 days following the hearing. When possible, the hearing shall be held in a location near the proposed site.
- (A) The Commission shall review all objections within 10 business days of receipt. An objection shall be in writing and shall include a statement of facts showing that the proposed installation:
- (i) does not comply with the rules in this chapter, specifying which rules are violated;
  - (ii) does not comply with the statutes of the State of Texas, specifying which statutes are violated; or
  - (iii) constitutes a danger to the public health, safety, and welfare, specifying the exact nature of the danger. The Commission does not consider public health, safety, and welfare to include such factors as the value of property adjacent to the installation, the esthetics of the proposed installation, or similar considerations.
- (B) Upon review of the objection, the Commission shall either:
- (i) schedule a public hearing as specified in §14.2022 of this title (relating to Denial, Suspension, or Revocation of Licenses or Certifications, and Hearing Procedure); or
  - (ii) notify the objecting party in writing within 10 business days of receipt requesting further information for clarification and stating why the objection is being returned. The objecting entity shall have 10 calendar days from the postmark of the Commission's letter to file its corrected objection. Clarification of incomplete or non-substantive objections shall be limited to two opportunities. If new objections are raised in the objecting party's clarification, the new objections shall be limited to one notice of correction.
- (6) Temporary installations which are used during peak demand times such as during cold weather or emergencies are not required to comply with these notice requirements. However, a sign shall be installed at the site and brochures or other similar means of notification shall be available at the site to advise the public of the need and use for the temporary installation.
- (d) Unless considered to be in the public interest by the Commission, the applicant or licensee does not need to notify owners of real property situated within 500 feet of the proposed container location(s) of an addition to an existing LNG facility provided the current aggregate water capacity is not more than doubled in a 12-month period; however, if the resulting aggregate water capacity will exceed 214,348 gallons, the applicant or licensee shall provide notice as specified in subsection (c) of this section.
- (e) The Commission shall grant tentative or interim approval prior to the setting of the LNG container and construction of the LNG installation.
- (f) When an LNG container is replaced with a container of the same or less overall diameter and length or height, and installed in the identical location of the existing container at an LNG storage installation of 15,540 gallons aggregate water capacity or more, the applicant shall file LNG Form 2501 with the Commission.

- (1) LNG Form 2500, LNG Form 2500A, and LNG Form 2501, including site plans and plans and specifications, are not required to be filed prior to installation of pull-away devices, or emergency shutoff valves (ESV's), or when maintenance and improvements are being performed to the piping system at existing previously approved LNG installations having an aggregate water capacity of 15,540 gallons or more.
  - (2) A nonrefundable fee of \$50 shall be submitted with each LNG Form 2500. A nonrefundable resubmission fee of \$30 shall be included with each incomplete or revised set of plans and specifications resubmitted.
  - (3) The proposed installation shall not be operated or used in LNG service until approved by the Commission.
- (g) Upon completion of a commercial installation having an aggregate water capacity of less than 15,540 gallons, the applicant shall submit LNG Form 2501, postmarked or physically delivered to the Commission, within ten calendar days after completion of such installation. LNG Form 2501 shall state that:
- (1) the installation complies with the statutes and Regulations for Liquefied Natural Gas;
  - (2) any necessary LNG licenses have been issued; and
  - (3) the installation has been placed in LNG service.
- (h) A nonrefundable fee of \$10 for each LNG container listed on LNG Form 2501 shall be submitted with each LNG Form 2501 required to be filed by the applicable subsections of this section. A nonrefundable resubmission fee of \$20 shall be included for each LNG Form 2501 resubmitted.
- (i) The Commission shall review all applications within 21 business days of the receipt of all required information and shall notify the applicant as follows:
- (1) If the Commission administratively approves the installation, the Commission shall notify the applicant in writing within 21 business days.
  - (2) If the Commission declines to administratively approve the installation, the Commission shall notify the applicant in writing, specifying the deficiencies, within 21 business days. The applicant may modify the submission and resubmit it for approval, or may request a hearing on the matter in accordance with the General Rules of Practice and Procedure of the Railroad Commission of Texas.
- (j) When the Commission notifies an applicant of an incomplete LNG Form 2500 or LNG Form 2500A, the applicant has 120 calendar days from the date of the notification letter to resubmit the corrected application or the application will expire. After 120 days, the applicant shall file a new application to reactivate Commission review of the proposed installation.
- (1) The applicant may request in writing an extension of the 120-day time period. The request shall be postmarked or physically delivered to the Commission before the expiration date. The Commission may extend the application period for up to an additional 90 days.
  - (2) If the tentatively approved installation is not completed within one year from the date tentative approval was granted, the application will expire. Prior to the date of expiration, the applicant may request in writing an extension of time of up to 90 days to complete the installation. If the applicant fails to request an extension of time within the time period prescribed in this subsection, the applicant will be required to submit a new application before the original installation can be completed.
  - (3) Prior to the installation of an LNG container referenced in this section in a heavily populated or congested area, the Commission shall determine whether the proposed installation poses a

threat to the health, safety, and welfare of the general public. The Commission shall determine restrictions on LNG container capacities in accordance with the following:

- (A) density of the population within 500 feet of the LNG installation;
  - (B) nature of the land use on those pieces of property located within 500 feet of the LNG installation;
  - (C) vehicular traffic in the area;
  - (D) types and numbers of roadways in the area;
  - (E) type of operations on the premises;
  - (F) potential ignition sources in the area;
  - (G) existence of dangerous or combustible materials in the area that might be affected in an emergency situation;
  - (H) the number of members of the general public who are concentrated in the area; and
  - (I) other factors related to the public health, safety, and welfare.
- (k) The Commission shall examine plans and specifications to ensure that they have been sealed by a qualified professional engineer licensed to practice in the State of Texas. The Commission shall review site plans to determine whether the installation complies with the distance requirements in this chapter. The Commission shall determine whether the subject of the submission poses a threat to the health, safety, and welfare of the general public.
- (1) If the Commission declines to approve administratively the submission, the Commission shall notify the applicant of this decision in writing within 21 calendar days. The applicant may modify the submission and resubmit it for approval within 21 calendar days after receiving the notice, or may request a hearing to be conducted in accordance with the General Rules of Practice and Procedure of the Railroad Commission of Texas. The subject of the submission shall not be operated or used in LNG service in this state until approved by the Commission following a hearing.
  - (2) LNG Form 2005, LNG Form 2008, and any other documentation pertinent to the installation may be requested by the Commission in order to further determine compliance with the Regulations for Liquefied Natural Gas.
- (l) Physical inspection of stationary installations.
- (1) Aggregate water capacity 15,540 gallons or more. The applicant shall notify the Commission when the installation is ready for inspection. If the Commission does not physically inspect the facility within 30 calendar days of receipt of notice that the facility is ready for inspection, the applicant may operate the facility conditionally until the initial complete inspection is made. If any safety rule violations exist at the time of the initial inspection, the applicant may be required to cease LNG operations until the applicant corrects the violations.
  - (2) Aggregate water capacity of less than 15,540 gallons. After receipt of LNG Form 2501, the Commission shall conduct an inspection as soon as possible to verify the installation described complies with the Regulations for Liquefied Natural Gas. The applicant may operate the facility prior to inspection if the facility fully complies with the Regulations for Liquefied Natural Gas. If any LNG statute or safety rule violations exist at the time of the initial inspection at a commercial installation, the Commission may immediately remove the subject container, including any piping, appliances, appurtenances, or equipment connected to it from LNG service until the applicant corrects the violations.

- (m) If the Commission finds after a public hearing that the proposed installation complies with the Regulations for Liquefied Natural Gas and the statutes of the State of Texas, and does not constitute a danger to the public health, safety, and welfare, the Commission shall issue an interim approval order. The construction of the installation and the setting of the container shall not proceed until the applicant has received written notification of the interim approval order. Any interim approval order shall include a provision that such approval may be suspended or revoked if:
  - (1) the applicant has introduced LNG into the system prior to final approval; or
  - (2) a physical inspection of the installation indicates that it is not installed in compliance with the submitted plat drawing for the installation, the Regulations for Liquefied Natural Gas, or the statutes of the State of Texas; or
  - (3) the installation constitutes a danger to the public health, safety, and welfare.
- (n) Material variances. If the Commission determines the completed installation varies materially from the application originally accepted, the applicant shall correct the variance and notify the Commission of the correction of the variance or resubmit the application. The Commission's review of such resubmitted application shall comply with the procedure described in this section.
- (o) In the event an applicant has requested an inspection and the Commission inspection identifies violations requiring modifications by the applicant, the Commission may assess an inspection fee to cover the costs associated with any additional inspection, including mileage and per diem rates set by the legislature.

#### **§14.2043 Temporary Installations**

- (a) Temporary installations shall comply with the following requirements:
  - (1) Prior to the completion of a temporary installation with an individual or aggregate water capacity of 15,540 gallons or less, the licensee or non-licensee shall file LNG Form 2501, including proof of the local fire marshal's approval if the installation is within such jurisdiction.
  - (2) Prior to the completion of a temporary installation with an individual or aggregate water capacity of 15,541 gallons or more, the licensee or non-licensee shall file LNG Form 2500, including plans and specifications, and proof of the local fire marshal's approval if the installation is with such jurisdiction.
- (b) Temporary installations shall be limited to one year. If the temporary installation needs to remain in service for more than one year, the licensee or nonlicensee responsible for the temporary installation shall inform the Commission of this extension of time at least 30 days prior to the expiration of the one-year period.
- (c) Temporary installations shall be protected by guardrail as specified in §14.2101(f) of this title (relating to Uniform Protection Standards) unless otherwise approved by the Commission.
- (d) Temporary installations shall comply with the electrical requirements specified in Subchapter F of this chapter (relating to Instrumentation and Electrical Services).
- (e) Temporary installations shall be mounted on a secure surface, not to include bare earth.
- (f) Temporary installations are not required to have impounding areas.
- (g) The Commission may inspect temporary installations for compliance with these requirements.

- (h) Any temporary installation subject to the jurisdiction of United States Department of Transportation under 49 Code of Federal Regulations, Part 193, shall comply with the applicable DOT rules and any requirements of the Commission's Gas Services Division, Pipeline Safety Section.

#### **§14.2046 Filings Required for School Bus, Mass Transit, and Special Transit Vehicles**

- (a) After the manufacture of or the conversion to an LNG system on any vehicle to be used as a school bus, mass transit, public transportation, or special transit vehicle, the manufacturer, licensee, or ultimate consumer making the installation or conversion shall notify the Commission in writing on LNG Form 2503 that the applicable LNG-powered vehicles are ready for a complete inspection to determine compliance with the Regulations for Liquefied Natural Gas.
- (b) If the Commission's initial complete inspection finds the vehicle in compliance with the Regulations for Liquefied Natural Gas and the statutes, the vehicle may be placed into LNG service. For fleet installations of identical design, an initial inspection shall be conducted prior to the operation of the first vehicle, and subsequent vehicles of the same design may be placed into service without prior inspections. Subsequent inspections shall be conducted within a reasonable time frame to ensure the vehicles are operating in compliance with the Regulations for Liquefied Natural Gas. If violations exist at the time of the initial complete inspection, the vehicle shall not be placed into LNG service and the manufacturer, licensee, or ultimate consumer making the installation or conversion shall correct the violations. The manufacturer, licensee, or ultimate consumer shall file with the Commission documentation demonstrating compliance with the Regulations for Liquefied Natural Gas, or the Commission shall conduct another complete inspection before the vehicle may be placed into LNG service.
- (c) The manufacturer, licensee, or ultimate consumer making the installation or conversion shall be responsible for compliance with the Regulations for Liquefied Natural Gas, statutes, and any other local, state, or federal requirements.
- (d) If the requested Commission inspection identifies violations requiring modifications by the manufacturer, licensee, or ultimate consumer, the Commission shall consider the assessment of an inspection fee to cover the costs associated with any additional inspection, including mileage and per diem rates set by the legislature.

#### **§14.2049 Report of LNG Incident/Accident**

- (a) If an incident or accident occurs during transport, as a result of a pullaway, or where LNG is or is suspected to be the cause, the licensee or nonlicensee owning, operating, or servicing the installation shall notify the division by telephone as soon as possible after the licensee or nonlicensee has knowledge of the incident or accident if any of the following occurs:
  - (1) a spill of 25 gallons or more of LNG;
  - (2) property damage of \$1,000 or greater; or
  - (3) an injury requiring transport to a medical facility.
- (b) Any transport unit required to be registered with the Commission in accordance with §14.2704 of this title (relating to Registration and Transfer of LNG Transports) which is involved in an accident where there is damage to the tank, piping appurtenances, or any release of LNG resulting from the accident shall be reported to the Commission, regardless of the accident location. Any LNG-powered motor vehicle used for school transportation or mass transit, including any state-



owned vehicle, which is involved in an accident resulting in a release of LNG or damage to LNG equipment shall be reported to the Commission, regardless of the accident location.

- (c) The telephone notification shall include the following information:
  - (1) the date and time of the incident or accident;
  - (2) type of structure or equipment involved;
  - (3) resident's or operator's name;
  - (4) physical location;
  - (5) number and type of injuries or fatalities;
  - (6) whether fire, explosion, or leak has occurred;
  - (7) whether LNG is currently leaking; and
  - (8) whether immediate assistance from the division is requested.
- (d) The individual making the telephone notification shall leave his or her name and telephone number.
- (e) Following the initial telephone report of any of the incidents or accidents described in this section, the licensee shall file LNG Form 2020 with the division. The form shall be postmarked within 14 calendar days of the date of initial notification to the division.

#### **§14.2052 Application for an Exception to a Safety Rule**

- (a) Any person may apply for an exception to the provisions of this chapter by filing LNG Form 2025 along with supporting documentation and a \$50 filing fee, with the Commission.
- (b) The application shall contain the following:
  - (1) the section number of any applicable rules for which the exception is being requested;
  - (2) the type of relief desired, including the exception requested and information which may assist the Commission in comprehending the requested exception;
  - (3) a concise statement of facts which support the applicant's request for the exception, such as the reason for the exception, the safety aspects of the exception, and the social or economic impact of the exception;
  - (4) for stationary installations, regardless of size, a description of the acreage and/or address upon which the subject of the exception will be located. The description shall be in writing and shall include:
    - (A) a site drawing;
    - (B) sufficient identification of the site so that determination of property boundaries can be made;
    - (C) a plat from the applicable appraisal district indicating the ownership of the land; and
    - (D) the legal authority under which the applicant, if not the owner, is permitted occupancy.
  - (5) the name, business address, and telephone number of the applicant and of the authorized agent, if any;
  - (6) an original signature in ink by the applicant filing the application or by the applicant's authorized representative; and

- (7) a list of the names and addresses of all interested entities as defined in subsection (d) of this section.
- (c) Notice of the application for an exception to a safety rule shall include the following items and procedures:
- (1) The applicant shall send a copy of LNG Form 2025 by certified mail, return receipt requested, to all affected entities on the same date on which the form is filed with or sent to the Commission. The applicant shall include a notice to the affected entities that any objection shall be filed with the Commission within 18 calendar days of the postmark. The applicant shall file all return receipts with the Commission as proof of notice.
  - (2) If an exception is requested for a stationary site, the affected entities to whom the applicant shall give notice shall include but not be limited to:
    - (A) persons and businesses owning or occupying property adjacent to the site;
    - (B) the city council or fire marshal, if the site is within municipal limits; and
    - (C) the county Commission, if the site is not within any municipal limits.
  - (3) If an exception is requested for a non-stationary installation, affected entities to whom the applicant shall give notice shall include but not be limited to:
    - (A) the Texas Department of Public Safety; and
    - (B) all processed gas loading and unloading facilities used by the applicant.
  - (4) The Commission may require an applicant to give notice to persons in addition to those listed in paragraphs (2) and (3) of this subsection if doing so will not prejudice the rights of any entity.
- (d) Objections to the requested exception shall be in writing, filed at the Commission within 18 calendar days of the postmark of the application, and shall be based on facts that tend to demonstrate that, as proposed, the exception would have an adverse effect on public health, safety, or welfare. The Commission may decline to consider objections based solely on claims of diminished property or esthetic values in the area.
- (e) The Commission shall review the application within 21 business days of receipt of the application. If the Commission does not receive any objections from any affected entities as defined in subsection (c) of this section, the division director may grant administratively the exception if the director determines that the installation, as proposed, does not adversely affect the health or safety of the public. The Commission shall notify the applicant in writing by the end of the 21-day review period and, if approved, the installation shall be installed within one year from the date of approval. The Commission shall also advise the applicant at the end of the objection period as to whether any objections were received and whether the applicant may proceed. If the director denies the exception, the Commission shall notify applicant, in writing, of the reasons and any specific deficiencies. The applicant may modify the application to correct the deficiencies and resubmit the application along with a \$30 resubmission fee, or may request a hearing on the matter in accordance with the General Rules of Practice and Procedure of the Railroad Commission of Texas. To be granted a hearing, the applicant shall file a written request for hearing within 14 calendar days of receiving notice of the administrative denial.
- (f) A hearing shall be held when the Commission receives an objection, as set out in subsection (d) of this section from any affected entity or when the applicant requests one following an administrative denial. The Commission shall mail the notice of hearing to the applicant and all objecting entities by certified mail, return receipt requested, at least 21 calendar days prior to the

date of the hearing. Hearings will be held in accordance with the Texas Government Code, Chapter 2001, et seq., the general rules of practice and procedure of the Railroad Commission, and the rules in this chapter.

- (g) Applicants intentionally submitting incorrect or misleading information are subject to penalties as set out in Texas Natural Resources Code, §91.143, and the filing of incorrect or misleading information shall be grounds for the Commission to dismiss an application with prejudice.
- (h) After hearing, the Commission may grant exceptions to this chapter if the Commission finds that granting the exception will not adversely affect the safety of the public.
- (i) For good cause shown, the division may grant a temporary exception of 30 days or less to the examination requirements for company representatives and operations supervisors. Good cause includes but is not limited to death of a sole proprietor or partner. Applicants for temporary exceptions shall comply with applicable safety requirements and the division shall obtain information showing that the exception will not be hazardous to the public.
- (j) A request for an exception shall expire if it is inactive for three months after the date of the letter in which the applicant was notified by the Commission of an incomplete request.

## **SUBCHAPTER B**

### **GENERAL RULES FOR ALL STATIONARY LNG INSTALLATIONS**

#### **§14.2101 Uniform Protection Requirements**

- (a) This section applies to the protection from tampering and damage of stationary LNG installations, including LNG transfer systems, dispensing systems, and storage containers.
- (b) Protection shall be maintained in good condition at all times in accordance with the standards set forth in this subsection. The Commission may impose additional requirements to ensure the safety of personnel and the general public.
- (c) Stationary LNG installations shall be protected from tampering and damage by either fencing or guardrails, or a combination of both as specified in this section. The operating end of the container, including the material handling equipment and the entire dispensing system, and any part of the LNG transfer system, dispensing system, or storage container which is exposed to vehicular traffic shall be protected from damage by the vehicular traffic to which it is normally exposed. The protection shall extend at least 24 inches beyond any part of the LNG transfer system, dispensing system, or storage container.
- (d) Stationary LNG installations may use fencing which is located more than 25 feet from any point of the LNG transfer system, dispensing system, or storage containers. If such perimeter fencing is used, the LNG transfer system, dispensing system, or storage containers shall also be protected from the normal vehicular traffic to which they are subjected by guardrails at the operating end of the equipment, including all material handling equipment. Guardrails shall be located at least 24 inches beyond any part of the protected equipment which is exposed to vehicular traffic.
- (e) Fencing at LNG stationary installations shall comply with the following:
  - (1) Fencing material shall be solid construction of noncombustible material or chain link with wire at least 12 1/2 American wire gauge in size.
  - (2) Fencing shall be at least six feet in height at all points. Fencing may be five feet in height when topped with at least three strands of barbed wire, with the strands four inches apart.
  - (3) Uprights, braces, and cornerposts shall be composed of noncombustible material if located within the minimum distances specified for ignition sources or combustible materials set forth in §14.2110 of this title (relating to LNG Container Installation Distance Requirements) for the enclosed LNG transfer system, dispensing system, or LNG containers.
  - (4) A minimum clearance of 24 inches shall be maintained between the fencing and any part of an LNG transfer system, dispensing system, or storage container that is part of a stationary installation.
- (f) Guardrails at LNG stationary installations shall comply with the following:
  - (1) Vertical supports for guardrails shall be at least four-inch concrete-filled schedule 40 steel pipe or material of equal or greater strength. The vertical supports shall be capped on top, anchored in concrete at least 36 inches below the ground, and rise at least 30 inches above the ground. Supports shall be spaced four feet apart or less.
  - (2) The top of the horizontal guardrailing shall be secured to the vertical supports at least 30 inches above the ground. The horizontal guardrailing shall be at least three-inch schedule 40 steel pipe or other material with equal or greater strength. The horizontal guardrailing shall be welded or bolted to the vertical supports with bolts of sufficient size and strength to prevent

damage to the protected equipment under normal conditions including the nature of the traffic to which the protected equipment is exposed.

- (3) Openings in the horizontal guardrailing shall not exceed 36 inches. A means of temporarily removing the horizontal guardrailing and vertical supports to facilitate the handling of heavy equipment may be incorporated into the horizontal guardrailing and vertical supports. In no case shall the protection provided by the horizontal guardrailing and vertical supports be decreased. Transfer hoses from the bulkhead shall be routed only over the horizontal guardrailing or through the 45-degree opening in front of the bulkhead.
- (4) A minimum clearance of 24 inches shall be maintained between the railing and any part of an LNG transfer system, dispensing system, or storage container.
- (g) Stationary LNG installations shall comply with the sign and lettering requirements specified in Table 1 of this section and the following:
  - (1) Unless colors are specified, lettering shall be a color in sharp contrast to the background color of the sign and shall be easily readable.
  - (2) Signs shall be visible from each point of transfer;
  - (3) Signs on emergency shutdown devices shall be permanently affixed;
  - (4) Signs bearing the words, "NATURAL GAS," shall be located on all operating sides of dispensers; and
  - (5) Signs indicating the licensee's name shall be located at either the vehicle dispenser or refueling area, or at the loading or unloading area.
- (h) At least two monitoring sensors shall be installed at all stationary installations to detect hazardous levels of LNG. Sensors shall activate at not more than 25% of the lower flammable limit of LNG. If the level exceeds one-fourth of the LFL, the sensor shall either shut the system down or activate an audible and visual alarm. The number of sensors to be installed shall comply with the area of coverage for each sensor and the size of the installation. The sensors shall be installed and maintained in accordance with the manufacturer's instructions.

#### **§14.2104 Uniform Safety Requirements**

- (a) In order to determine the safety of a container, the Commission may request the manufacturer's data report on that container. The Commission may also request that containers and assemblies be examined by a Category 15, 20, or 50 licensee equipped for and experienced in the testing of LNG containers and equipment. The Category 15, 20, or 50 licensee shall file a comprehensive report on its findings with the Commission. This requirement may be applied even though an acceptable LNG Form 2023 is on file at the Commission.
- (b) Any stationary LNG container previously in LNG service which has not been subject to continuous LNG pressure or inert gas pressure shall be inspected by a currently licensed Category 15, 20, or 50 licensee to determine if the container shall be leak-tested or re-certified. A copy of the inspector's written report shall be filed with the Commission. The container shall not be used until the Commission grants approval.
- (c) Any stationary LNG container which has been subject to continuous LNG or inert gas pressure need not be tested prior to installation provided an acceptable LNG Form 2023 is filed with the Commission when LNG Form 2500 is submitted for any facility requiring submission of plans and specifications.

**Table 1**

<b>Requirements for Signs</b>	<b>LNG Vehicle Dispenser/Refueling Area</b>	<b>Emergency Shutdown Devices</b>	<b>LNG Loading or Unloading Area</b>
Red capital letters at least 2" high on white background: NO SMOKING OR OPEN FLAMES	*		*
Red capital letters at least 4" high on white background: FLAMMABLE GAS			*
Black capital letters at least 4" high on white background: NO TRESPASSING AUTHORIZED PERSONNEL ONLY			*
Capital letters at least 2" high FLAMMABLE GAS	*		*
White capital letters at least 2" high on red background: EMERGENCY SHUTDOWN		*	
White capital letters at least 2" high on red background: EMERGENCY PUMP/COMPRESSOR SHUTDOWN		*	
Letters at least 2" high: PRESSURE RELIEF DEVICE SET AT _____			*
Letters at least 4" high: Name of Licensee	*		*

- (d) When installed for use, containers shall not be stacked one upon another except when designed by the manufacturer for stacking.

#### **§14.2107 Stationary LNG Storage Containers**

- (a) Used LNG containers shall meet the requirements of §14.2104 of this title (relating to Uniform Safety Requirements) and any other applicable rules prior to being reused in LNG service.
- (b) ASME, DOT and API containers shall be identified by attachment of a stainless steel nameplate in a location that will remain visible after the container is installed and by a method which will minimize corrosion of the nameplate, its means of attachment, and the container. The nameplate shall be marked with the following information:
  - (1) manufacturer's name and date of construction of container;
  - (2) nominal liquid capacity (in barrels or gallons);
  - (3) design pressure (in psig) for methane gas at the top of the container;
  - (4) maximum permissible density of liquid to be stored;
  - (5) maximum level to which container may be filled with stored liquid;
  - (6) maximum level to which container may be filled with water for test, if applicable; and
  - (7) minimum temperature in degrees Fahrenheit for which the container was designed.
- (c) Openings on storage containers shall be marked with a sign or tag showing the function of the opening. The markings shall remain readable during all operating conditions and shall be located to minimize the effects of possible frosting.
- (d) Shop-fabricated and shop-tested LNG containers shall be leak-tested to 90% of the pressure relief valve setting after being installed and filled with LNG.

#### **§14.2110 LNG Container Installation Distance Requirements**

- (a) LNG containers shall be installed in accordance with the following minimum distance requirements:
  - (1) Containers with aggregate water capacities up to 15,540 gallons shall be located at least 25 feet from any building, property line, stationary ignition sources, or other aboveground flammable liquids;
  - (2) Containers with aggregate water capacities from 15,541 to 93,240 gallons shall be located at least 50 feet from any building, property line, stationary ignition sources, or other aboveground flammable liquids;
  - (3) Containers with aggregate water capacities of 93,241 gallons or more shall be located at least 100 feet from any building, property line, stationary ignition sources, or other aboveground flammable liquids.
  - (4) Underground LNG containers shall be located at least 15 feet apart, regardless of size.
  - (5) LNG dispensers or points of transfer shall be located at least 25 feet from the nearest building not associated with the LNG facility and from any line of adjoining property that can be built upon.
- (b) Operating industrial trucks with only one container mounted on each truck may be stored inside buildings. Extra containers shall not be stored inside buildings. Operating industrial trucks shall be stored in an area that will reduce the likelihood of an accident. Service valves shall be closed whenever a truck with a mounted container is stored. A venting system shall be used any time a vehicle not in operation is inside a building to allow safe relief valve venting.

- (c) Stationary LNG containers and piping shall not be placed in the area directly beneath or above an electric transmission, distribution, or customer service line and the area six feet to either side of that line. If this distance is not adequate to prevent the line and the associated voltage from contacting the LNG container in the event of breakage of any conductor, then other suitable means of protection designed and constructed to prevent such contact with the container may be used if approval is received from the Commission. The request for approval shall be in writing and shall specify the manner in which the container will be protected from contact, including specifications for the materials to be used. If the Commission does not approve the proposed protection, then the container shall be located a sufficient distance from the line to prevent such contact.

#### **§14.2113 Maintenance Tanks**

- (a) Stationary installations which include vehicle maintenance areas may have a container permanently installed outside the maintenance area to remove LNG from a vehicle if the removal of the LNG is necessary to perform maintenance or repairs. The container shall comply with the following requirements:
  - (1) The container shall have a maximum water capacity of 200 gallons; and
  - (2) The transfer of LNG from the vehicle into the maintenance container shall take place outside any building.
- (b) The container mounted on the mobile refueling vehicle described in §14.2307 of this title (relating to Indoor Fueling) may be used to store fuel from a vehicle requiring maintenance provided both the mobile refueling vehicle and the vehicle requiring maintenance are outside any building during the transfer of fuel.

#### **§14.2116 Transfer of LNG**

- (a) Venting of LNG is prohibited as part of routine activities, except for the following:
  - (1) as provided for in §14.2119 of this title (relating to Transport Vehicle Loading and Unloading Facilities and Procedures); and
  - (2) through a trycock installed on a stationary storage tank during filling of the tank.
- (b) LNG being transferred into stationary storage containers shall be compatible in composition or temperature and density with the LNG already in the container. When making transfers into fueling facility containers, the LNG shall be transferred at a pressure that will not exceed the set pressure of the pressure relief device.
- (c) When the composition or temperature and density are not compatible, measures shall be taken to prevent an excessive rate of vapor evolution.
- (d) At least one licensed or certified individual shall be in attendance while unloading is in progress.
- (e) Ignition sources shall not be permitted within 25 feet of the transfer area or within the distances specified as classified areas in Table 1 of §14.2513 of this title (relating to Electrical Equipment) while transfer of LNG is in progress.
- (f) Measuring instruments shall be provided to determine that containers are not overfilled.



## **§14.2119 Transport Vehicle Loading and Unloading Facilities and Procedures**

- (a) Transport vehicle loading and unloading facilities shall meet the following requirements:
  - (1) Rack structures shall be constructed of noncombustible material such as steel or concrete.
  - (2) Transfer piping, pumps, and compressors shall be installed with the following protective measures:
    - (A) protection from damage from vehicle movements in compliance with the guardrail and fencing requirements of §14.2101 of this title (relating to Uniform Protection Requirements);
    - (B) isolation valves at both ends of containers with less than 2,000 gallon capacity, and a remote operating valve, automatic closure, or check valve to prevent backflow on containers of 2,000 gallons or more capacity;
    - (C) isolation valving and bleed connections to depressurize hoses and arms and minimize venting before disconnecting;
    - (D) hoses and arms equipped with a shutoff valve at the free end;
    - (E) a check valve on piping for liquid transfer to minimize accidental release; and
    - (F) a line relief valve between every pair of isolation valves.
  - (3) Where multiple products are loaded or unloaded at the same location, loading arms, hoses, and manifolds shall be marked to indicate the product or products handled by each system.
  - (4) Operating status indicators shall be provided in the transfer area.
- (b) Written procedures covering normal transfer and emergency operating procedures shall be available for all transfer operations. The procedures shall be kept current and available to all employees engaged in transfer operations.
- (c) Prior to beginning transfer operations, the following checks shall be made:
  - (1) Gauge readings shall be obtained or inventory established to prevent overfilling of the receiving vessel.
  - (2) Transfer connections shall be checked to ensure they are gastight and liquidtight.
  - (3) Unless required for transfer operations, LNG or flammable liquid transport vehicle engines shall be turned off. Brakes shall be set and wheels chocked to prevent movement of the vehicle prior to connecting for transfer. The engine shall not be started until the transport vehicle has been disconnected and any released vapors have dissipated.
  - (4) Prior to loading LNG into a transport vehicle tank which does not have a positive pressure or is not in exclusive LNG service, a test shall be made to determine the oxygen content in the receiving container. If the oxygen content in either case exceeds 1.0% by volume, the container shall not be loaded until suitably purged.
  - (5) An LNG transport vehicle shall be positioned prior to transfer so that it can exit the area without backing when the transfer operation is complete.
- (d) During transfer operations, the following checks shall be made:
  - (1) Levels shall be checked during the transfer operations.

- (2) Pressure and temperature conditions shall be observed during the transfer operations. If any unusual variance in pressure occurs, transfer shall be stopped until the cause has been determined and corrected.
- (e) No repair shall be performed on the transfer system while transfer is taking place.

#### **§14.2122 Transfer Systems, Including Piping, Pumps, and Compressors, Used for LNG and Refrigerants**

- (a) Transfer systems and pumps used for transfer of LNG and refrigerants shall be provided with means for precooling to reduce the effect of thermal shock and overpressure.
- (b) Check valves shall be provided as required to prevent backflow in transfer systems and shall be located as close as practicable to the point of connection to any system from which backflow might occur.
- (c) In addition to a locally mounted device to shut down the pump or compressor drive, a readily accessible, remotely located device shall be provided at least 25 feet away from the equipment to shut down the pump or compressor in case of emergency. The device shall be marked in accordance with the table in §14.2101 of this title (relating to Uniform Protection Requirements). Remotely located pumps and compressors used for loading or unloading tank vehicles shall be provided with shut-down controls at the transfer area and at the pump or compressor site.
- (d) Pressure gauges shall be installed on each pump and compressor discharge.
- (e) Valves shall be installed so that each pump or compressor can be isolated for maintenance. Where pumps or centrifugal compressors are installed for operation in parallel, each discharge line shall be equipped with a check valve.
- (f) Pumps and compressors shall be provided with pressure relief devices to limit the discharge pressure to their maximum allowable working pressure.

#### **§14.2125 Hoses and Arms**

- (a) Hoses and arms used for transfer shall be suitable for the temperature and pressure of the operating conditions. Hoses shall be designed to have a bursting pressure of at least five times the maximum allowable working pressure of the equipment to which it is attached.
- (b) Loading hoses or arms shall be supported to prevent displacement of the hoses and arms that results in greater stresses than those allowed in Appendix A of ANSI B31.3.
- (c) Couplings used for connection of a hose or arm shall be suitable for operating conditions and shall be designed for frequent coupling and uncoupling.
- (d) Hoses shall be tested at least annually to the setting of the relief valve that protects the hose.
- (e) Hoses shall be visually inspected for damage or defects before each use and shall not be used if any damage or defect is found.

#### **§14.2128 Communications and Lighting**

- (a) Emergency communications shall be provided near transfer locations so that the operator can contact remotely located personnel who are associated with the transfer operations.
- (b) Transfer areas shall be illuminated during hours of darkness.

#### **§14.2131 Fire Protection**

- (a) Fire protection shall be provided for all LNG facilities, as determined by sound fire protection engineering principles, analysis of local conditions, hazards within the facility, and exposure to or from other property. The evaluation shall determine at a minimum type, quantity, and location of:
  - (1) equipment necessary for the detection and control of fires, leaks, and spills of LNG, flammable refrigerants, or flammable gases;
  - (2) equipment necessary for the detection and control of potential non-process and electrical fires;
  - (3) the methods necessary for protection of the equipment and structures from the effects of fire;
  - (4) fire protection water systems;
  - (5) fire extinguishing and other fire control equipment;
  - (6) the availability and duties of employees and the availability of local emergency response organizations during an emergency; and
  - (7) the protective equipment and special training needed by employees for their emergency duties.
- (b) A detailed emergency response manual shall be prepared for potential emergency conditions. The procedures shall include but not be limited to:
  - (1) shut-down or isolation of all or part of the equipment to ensure that the escape of gas or liquid is promptly stopped or reduced as much as possible;
  - (2) use of fire protection equipment;
  - (3) notification of emergency response organizations and public authorities;
  - (4) first aid; and
  - (5) duties of employees.
- (c) The emergency procedure manual shall be available in the operating area and shall be updated as required by changes in equipment or procedures.
- (d) Employees engaged in LNG activities shall be trained in emergency duties and procedures. Refresher training shall be conducted at least once every two years.
- (e) Fire control measures shall be coordinated with the local fire and emergency response organizations.
- (f) Safety and fire protection equipment shall be visually inspected at least once a month and tested at least once a year. Documentation shall be maintained on inspections and tests for at least two years or consistent with other safety record retention schedules, whichever is greater.
- (g) Maintenance on fire control equipment shall be scheduled so that a minimum of equipment is out of service at any one time and fire protection safety is not compromised. Access routes for movement of fire control equipment to an LNG fueling facility shall be maintained at all times.
- (h) Fire extinguishing and other fire control systems shall follow the local fire marshal's requirements and recommendations for the protection of specific hazards.
- (i) Dry chemical fire extinguishers suitable for extinguishing gas fires shall be provided at each stationary LNG installation.

#### **§14.2134 Container Purging Procedures**

- (a) Only experienced and qualified personnel shall be responsible for container purging procedures.
- (b) Prior to placing an LNG container into service, the air shall be displaced by an acceptable inerting procedure as described in American Gas Association Purging Principles and Practice, 1975 edition.
- (c) Prior to taking a container out of service, the natural gas in the container shall be purged by an acceptable inerting procedure.
- (d) The oxygen content of the container during purging operations shall be determined by an acceptable oxygen analyzer.

#### **§14.2137 Employee Safety and Training**

- (a) Employees shall be advised of the hazards relative to LNG facility operations.
- (b) Protective clothing and equipment shall be provided to employees for both normal operations and emergency response.
- (c) Employees who handle and dispense LNG shall be trained in proper handling, operating duties, and procedures.
- (d) Employees shall be trained upon employment and as needed thereafter, but no less than every two years. Training shall include the following:
  - (1) information on the nature, properties, and hazards of LNG in both the liquid and gaseous phases;
  - (2) specific instructions on the facility equipment to be used;
  - (3) use and care of protective equipment and clothing;
  - (4) standard first aid;
  - (5) response to emergency situations such as fire, leaks, and spills;
  - (6) good housekeeping practices;
  - (7) the emergency response plan; and
  - (8) evacuation and fire drills.
- (e) Licensees or ultimate consumers shall retain employee safety training records for the past four years.

#### **§14.2140 Inspection and Maintenance**

- (a) Licensees shall have a preventive maintenance program in place which includes a schedule of written procedures for regular testing and inspection of facility systems and equipment.
- (b) Components and their related support systems shall be maintained in a condition that is compatible with their operation or safety purpose by repair, replacement, or other means.
- (c) If a safety device is taken out of service for maintenance, the component served by the device shall also be taken out of service unless the same safety function is provided by an alternate means.

- (d) If the inadvertent operation of a component taken out of service could cause a hazardous condition, that component shall have a weather-resistant tag attached to the controls with the words, "DO NOT OPERATE," or similar notice.
- (e) The operations supervisor shall retain permanent records of dates and maintenance activities performed.
- (f) Welding, cutting, and similar operations shall be prohibited within 25 feet of the container and the transfer area during transfer operations and shall be conducted only as specifically authorized in a manner to prevent accidental ignition of LNG or flammable fluids.

## **SUBCHAPTER D**

### **GENERAL RULES FOR LNG FUELING FACILITIES**

#### **§14.2301 Applicability**

This subchapter applies to the design, construction, installation, and operation of containers, pressure vessels, pumps, vaporization equipment, buildings, structures, and associated equipment used for the storage and dispensing of LNG as an engine fuel for vehicles of all types.

#### **§14.2304 General Facility Design**

- (a) LNG fueling facilities shall be designed with provisions for securing all equipment in accordance with §14.2101 of this title (relating to Uniform Protection Requirements).
- (b) Structures and support of LNG fueling facility equipment, piping, controls, and tanks shall be constructed of noncombustible material.
- (c) Dikes, grading, or diversion curbs shall be provided to prevent combustible or hazardous liquids from encroaching on the LNG refueling facility.
- (d) LNG shall not be vented to the atmosphere under normal operations unless the vent leads to a safe point of discharge. Vent pipes or stacks shall have the open end suitably protected to prevent entrance of rain, snow, and other foreign material. Vent stacks shall have provision for drainage.
- (e) Instructions identifying the location and operation of emergency controls shall be conspicuously posted in the facility area.
- (f) LNG fueling facility containers, liquid impoundment areas, and points of transfer shall be located according to the distances specified in §14.2110 of this title (relating to LNG Container Installation Distance Requirements).
- (g) LNG fueling facility containers may be sited above or below grade. Soil susceptible to freezing from contact with containers shall be heated directly or protected with an air space.
- (h) Containers having outer jackets made of materials subject to corrosion shall be protected against corrosion.
- (i) Vehicles delivering LNG to a facility or vehicles being fueled from a facility shall not be considered ignition sources. Vehicles containing fuel-fired equipment, such as recreational vehicles and catering trucks, shall be considered ignition sources unless the fuel-fired equipment is shut off completely before the vehicle enters an area in which ignition sources are prohibited.
- (j) LNG fueling facilities which transfer LNG at night shall have permanent lighting at points of transfer and operation, including at least two lights with a total of at least two footcandles of power.
- (k) Temperature monitoring systems shall be provided where the foundations supporting cryogenic containers and equipment could be adversely affected by freezing or frost heaving of the ground.

#### **§14.2307 Indoor Fueling**

- (a) Buildings reserved exclusively for LNG fueling shall be constructed of noncombustible or limited combustible material. Windows and doors shall be located to permit ready egress in case of emergency.

- (b) Buildings used for indoor fueling shall meet the following requirements:
  - (1) Indoor fueling facilities that are within a local fire marshal's jurisdiction shall obtain written approval from the local fire marshal, either by signature, seal, or stamp on LNG Form 2500 or on a separate letter.
  - (2) Indoor fueling facilities that are outside a local fire department's jurisdiction shall comply with the requirements of the Uniform Building Code.
- (c) LNG Form 2500, including plans and specifications, shall be filed with the Commission, as specified in §14.2040 of this title (relating to Filings Required for Stationary LNG Installations).

#### **§14.2310 Emergency Refueling**

- (a) Licensees and nonlicensees, such as mass transit authorities, may use a mobile refueling vehicle for emergency refueling provided it complies with the following requirements:
  - (1) The gross vehicle weight (GVW) shall not exceed the GVW rating. Installation of the container shall not adversely affect the vehicle.
  - (2) The vehicle used to transport the container shall comply with all DOT and Texas placarding requirements.
  - (3) The LNG cargo container shall have a maximum water capacity of 200 gallons.
  - (4) The container, fittings, and transfer equipment shall be properly secured against displacement.
- (b) The individual performing the transfer of LNG shall be properly trained in all aspects of LNG transfer.
- (c) Prior to the mobile refueling vehicle being placed into service, the licensee or non-licensee shall file with the division a drawing showing the mounting, type of container, water capacity of the container, type of vehicle to be used, and the method of mounting. The vehicle shall not be placed into service until the division ensures that it complies with the applicable rules.
- (d) Emergency refueling vehicles are not required to be registered with the Commission.

#### **§14.2313 Fuel Dispensing Systems**

- (a) Compliance with this section does not ensure conformity with other state and federal regulations, such as those of the Texas Commission on Environmental Quality or the United States Environmental Protection Agency. Retail LNG dispensers shall comply with the applicable weights and measures requirements of the Texas Department of Agriculture relating to dispensing accuracy.
- (b) Appurtenances and equipment placed into LNG service shall be listed by a Category 15, 20, or 50 licensee unless:
  - (1) the appurtenances or equipment are specifically prohibited for use by another section of the Regulations for Liquefied Natural Gas; or
  - (2) there is no test specification or procedure developed by a testing laboratory for the appurtenances or equipment.
- (c) Appurtenances and equipment that are labeled but not listed and are not prohibited for use by the Regulations for Liquefied Natural Gas shall be acceptable and safe for LNG service over the full

range of pressures and temperatures to which they will be subjected under normal operating conditions.

- (d) The Commission may require any documentation sufficient to substantiate any claims made regarding the safety of any valves, fittings, and equipment.
- (e) Drive-away protection shall be provided.
- (f) Emergency shut-down devices shall be distinctly marked for easy recognition according to the requirements of Table 1 of §14.2101 of this title (relating to Uniform Protection Requirements) and shall activate a valve installed at the dispensing area that shuts off the power and gas supply to the dispensers. ESD devices shall be located as follows:
  - (1) For containers with water capacity of 93,240 gallons or less, an ESD device shall be located between 35 and 50 feet from the container.
  - (2) For containers with water capacity of 93,241 gallons or more, an ESD device shall be located between 60 and 75 feet from the container.
- (g) Manually operated container valves shall be provided for each container.
- (h) Manually operated shutoff valves shall be installed in manifolds as close as practicable to a container or group of containers.
- (i) The use of hoses or arms in a fueling installation is limited to:
  - (1) a vehicle fueling hose;
  - (2) an inlet connection to compression equipment; or
  - (3) a section of metallic hose not exceeding 36 inches in length in a pipeline to provide flexibility where necessary. Metallic hose shall be installed so that it will be protected against damage and be readily visible for inspection. The manufacturer's identification shall be retained for each section of metallic hose used.
- (j) When a hose or arm of nominal three-inch diameter or larger is used for liquid transfer, or nominal four-inch diameter or larger is used for vapor transfer, an emergency shutoff valve shall be installed in the piping of the transfer system less than ten feet from the nearest end of the hose or arm. If the flow is away from the hose, a check valve may be used as the shutoff valve. If a liquid or vapor line has two or more legs, an emergency shutoff valve shall be installed in each leg.
- (k) The fill line on storage containers shall be equipped with a backflow check valve to prevent discharge of LNG from the container in case of line, hose, or fitting rupture.
- (l) A fueling connection and mating vehicle receptacle shall be used to transfer LNG or gas vapor to or from the vehicle.
- (m) An interlock device shall be provided so that the hose coupling cannot be released while the transfer line is open. Interlock devices are not required for transports when transferring fuel to a stationary tank.
- (n) The maximum delivery pressure shall not exceed the maximum allowable working pressure of the vehicle and fuel tanks.
- (o) Where excess flow check valves are used, the closing flow shall be less than the flow rating of the piping system that would result from a pipeline rupture between the excess flow valve and the equipment downstream of the excess flow check valve.



#### **§14.2316 Filings Required for Installation of Fuel Dispensers**

After the installation of a fuel dispenser, LNG Form 2501 shall be filed with the Commission along with the required fees set forth in §14.2040 of this title (relating to Filings Required for Stationary LNG Installations). Site plans shall detail the area within 150 feet of the dispenser and the fuel storage container or to the facility's property line, whichever is less. Tentative approval shall be granted if the site plans indicate the installation will meet the requirements of the Regulations for Liquefied Natural Gas and the Natural Resources Code. Final approval shall be issued only after a field inspection confirms that the installed dispenser meets all the requirements of the Regulations for Liquefied Natural Gas.

#### **§14.2319 Automatic Fuel Dispenser Safety Requirements**

- (a) Automatic fuel dispensers shall be fabricated of material suitable for LNG and resistant to the action of LNG under service conditions. Pressure containing parts shall be stainless steel, brass, or other equivalent cryogenic material. Aluminum may be used for approved meters.
- (b) Electric installations within dispenser enclosures and the entire pit or open space beneath dispensers shall comply with NEC, Class 1, Group D, Division 1, except for dispenser components located at least 48 inches above the dispenser base which NEC states are intrinsically safe.
- (c) Valves, metering equipment, and other related equipment installed on a automatic dispensers shall meet all applicable requirements of the Regulations for Liquefied Natural Gas.
- (d) Automatic dispensers shall be protected from damage by vehicle collision by fencing and guardrails installed in accordance with §14.2101 of this title (relating to Uniform Protection Requirements).
- (e) A device shall be installed in the liquid piping so that displacement of an automatic dispenser will result in the displacement of such piping on the downstream side of the device.
- (f) The fueling nozzle shall prevent LNG from being discharged unless the nozzle is connected to the vehicle.
- (g) A key, card, or code system shall be used to activate the automatic dispenser.
- (h) Automatic dispensers shall incorporate cutoff valves with opening and closing devices which ensure the valves are in a closed position when dispensers are deactivated.
- (i) LNG fuel storage installations which include automatic dispensers shall be equipped with an emergency shut-down device for the entire LNG installation located at least 20 feet from the nearest dispenser or storage area. The emergency shut-down device shall be distinctly marked for easy recognition in compliance with the requirements of §14.2101 of this title (relating to Uniform Protection Requirements).
- (j) If automatic dispensers are to be used during hours of darkness, permanent adequate lighting shall be provided to facilitate proper operations.

#### **§14.2322 Protection of Automatic and Other Dispensers**

- (a) Dispensers shall be secured to a concrete island at least six inches above the normal grade and two inches above the grade of any other liquid fuel dispenser.

- (b) Dispensers shall be protected against collision damage by support columns or other such protection installed at the approach ends of the concrete island.
- (c) If the protection described in subsections (a) and (b) of this section cannot be provided, the dispensers shall be protected as specified in §14.2101 of this title (relating to Uniform Protection Requirements).

#### **§14.2325 LNG Transport Unloading at Fueling Facilities**

Procedures and requirements for LNG transport unloading at fueling facilities shall be as specified in §14.2119 of this title (relating to Transport Vehicle Loading and Unloading Facilities and Procedures) of this chapter.

#### **§14.2328 Training, Written Instructions, and Procedures Required**

- (a) Dispensers may be operated only by an individual who has been properly trained in all aspects of the operation and safety procedures.
- (b) Any individual who operates a dispenser shall be provided with written instructions and safe operating procedures by the licensee. Step-by-step operating instructions provided by the manufacturer shall be posted at or on each dispenser and shall be readily visible to the operator during transfer operations. The instructions shall describe each action necessary to operate the dispenser.
- (c) Licensees or ultimate consumers shall maintain a current list of all individuals trained in the safe operation of dispensers.

## **SUBCHAPTER E**

### **PIPING SYSTEMS AND COMPONENTS FOR ALL STATIONARY LNG INSTALLATIONS**

#### **§14.2401 General Provisions for Piping Systems and Components**

Piping systems shall comply with ANSI B31.3, Chemical Plant and Petroleum Refinery Piping. The additional provisions of this subchapter apply only to pressurized piping systems and components for LNG, flammable refrigerants, flammable liquids, and flammable gases, and unpressurized or low pressure piping systems, including vent lines and drain lines which handle LNG, flammable refrigerants, flammable liquids, and flammable gases with service temperatures below -20 degrees Fahrenheit.

#### **§14.2404 Piping Materials**

- (a) Piping materials, including gaskets and thread compounds, shall be suitable for use with LNG throughout the range of temperatures to which they will be subjected. The temperature limitations for pipe materials shall be as specified in ANSI B31.3.
- (b) Piping which would be exposed during an emergency to the cold of an LNG or refrigerant spill or the heat of an ignited spill when either exposure could result in a failure of the piping which would significantly increase the emergency shall be:
  - (1) made of material that is suitable for both its normal operating temperature and the extreme temperatures to which it might be subjected during an emergency;
  - (2) protected by insulation or other means to delay failure due to such extreme temperatures until corrective action may be taken by the operator; or
  - (3) capable of being isolated and having the flow stopped in piping that would be exposed only to the heat of an ignited spill during the emergency.
- (c) Piping insulation used in areas where the mitigation of fire exposure is necessary shall be made of material which will not propagate fire and shall maintain any properties which are necessary during an emergency when exposed to fire, heat, cold, or water.
- (d) Furnace lap-weld, furnace butt-weld, cast iron, malleable iron, and ductile iron pipe shall be prohibited.**
- (e) When longitudinal or spiral weld pipe is used (welded with or without filler metal), the weld and heat-affected zone shall comply with ANSI B31.3, 323.2.2, and §14.2419 of this title (relating to Welding at Piping Installations).
- (f) Threaded pipe shall be at least schedule 80.
- (g) A liquid line, excluding loading arms or hoses, on a storage container, cold box, or other major item of insulated equipment external to the outer shell or jacket whose failure can release a significant quantity of flammable fluid shall not be made of aluminum, copper, or copper alloy, or other material which has low resistance to flame temperatures unless such material is protected against fire exposure. Transition joints may be used if they are protected against fire exposure.

#### **§14.2407 Fittings Used in Piping**

- (a) Cast iron, malleable iron, and ductile iron shall not be used in fittings.
- (b) Threaded nipples shall be at least schedule 80.
- (c) Bends are permitted only in accordance with ANSI B31.3, 329.
- (d) Solid plugs or bull plugs made of at least schedule 80 shall be used for threaded plugs.
- (e) Compression-type couplings shall not be used where they will be subjected to temperatures below -20 degrees Fahrenheit unless such couplings meet the requirements of ANSI B31.3, 318.

#### **§14.2410 Valves**

- (a) Cast iron, malleable iron, and ductile iron shall not be used in valves in piping.
- (b) Extended bonnet valves with or without bellows seals should be used for service temperatures below -50 degrees Fahrenheit.

#### **§14.2413 Installation of Piping**

- (a) Bolted connections shall be designed to withstand thermal contraction and expansion.
- (b) Pipe joints larger than two-inch nominal diameter shall be welded or flanged. Joints of four-inch nominal diameter or less may be threaded where necessary for special connections to equipment provided that the special connection is not subject to fatigue-producing stresses. The number of threaded or flanged joints shall be kept to a minimum. Dissimilar metals shall only be joined by flanges or transition joint techniques which will not be adversely affected by LNG.
- (c) Gasket material shall withstand as much as practicable exposure to fire.
- (d) Piping and tubing shall be installed as directly as possible with provisions for expansion, contraction, jarring, vibration, and settling. Underground piping shall be buried at least 18 inches below the ground surface unless otherwise protected. Refrigerated piping shall not be buried unless the surrounding soil is heated.

#### **§14.2416 Installation of Valves**

- (a) Valves shall be installed to prevent leaking or malfunction due to freezing. Cryogenic liquid valves shall be installed at an angle greater than 45 degrees from horizontal.
- (b) Isolation valves shall be provided on container, tank, and vessel connections, except for connections:
  - (1) for relief valves. Shutoff valves are only permitted at connections for relief valves in accordance with ASME Code, Section VIII, Division 1, Paragraphs UG-125(d) and Appendix M, Paragraphs M-5 and M-6;
  - (2) for liquid level alarms required by §14.2501 of this title (relating to Liquid Level Gauging); or
  - (3) that are blind-flanged or plugged.
- (c) **Shutoff valves shall be located inside the impounding area as close as practicable to the containers, tanks, and vessels.**

- (d) Internal valves shall be designed and installed so that any failure of the nozzle will be downstream of the seat of the internal valve itself.
- (e) The number of shutoff valves installed shall be kept to the minimum required for efficient and safe operation of each facility.
- (f) Piping systems shall be designed to limit the contained volume that could be discharged in the event of a piping system failure. Sufficient valves which can be operated both at the installed location and from a remote location to shut down the process and transfer systems in the event of an emergency shall be installed.
- (g) Container connections larger than one-inch pipe size through which liquid can escape shall be equipped with:
  - (1) a valve which closes automatically if exposed to fire; or
  - (2) a remotely controlled, quick-closing valve which shall remain closed except during the operating period;
  - (3) a fail-close valve; or
  - (4) a check valve on filling connections.
- (h) ESD valves shall be single-purpose valves.
- (i) **Valves and valve controls shall be designed to permit operation under icing conditions, if such conditions are possible.**
- (j) Powered controls shall be provided for emergency shutoff valves that would require excessive time to manually operate during an emergency or if the valve is eight inches or larger in size. A means for manual operation shall also be provided.

#### **§14.2419 Welding at Piping Installations**

Qualification and performance of welders shall comply with ANSI B31.3. Oxygen-fuel gas welding is prohibited on piping for service temperatures below -20 degrees Fahrenheit. Electric arc or inert gas-shielded welding are permissible.

#### **§14.2422 Pipe Marking and Identification**

- (a) Markings on pipe shall be made with a material compatible with the basic material or with a round-bottom, low-stress die. Materials less than 1/4 inch in thickness shall not be die-stamped.
- (b) Marking materials that are corrosive to the pipe material shall not be used.
- (c) Piping shall be identified by color-coding, painting, or labeling so as to be readily readable.

#### **§14.2425 Pipe Supports**

- (a) Pipe supports, including insulation systems used to support pipe whose integrity is essential to facility safety, shall be resistant to or protected from fire exposure, escaping cold liquid, or both, if such exposure is possible.
- (b) Pipe supports for cold lines shall be designed to prevent excessive heat transfer which can result in piping restraints caused by ice formations or embrittlement of supporting steel. Design of supporting elements shall conform with ANSI B31.3, 321.

#### **§14.2428 Inspection and Testing of Piping**

- (a) Pressure tests shall be conducted in accordance with ANSI B31.3, 337.
- (b) Pressure, test medium temperature, and ambient temperature shall be recorded for the duration of each test and these records shall be maintained for the life of the facility or until such time as a retest is conducted.

#### **§14.2431 Welded Pipe Tests**

- (a) Longitudinal or spiral welded pipe which will be subjected to service temperatures below -20 degrees Fahrenheit shall have a design pressure of less than 2/3 of the mill proof test pressure or subsequent shop or field hydrostatic test pressure, except for pipe which has been subjected to 100% radiographic or ultrasonic inspection of the longitudinal or spiral weld.
- (b) Circumferential butt-welds shall be fully examined by radiographic or ultrasonic inspection. Piping with an operating pressure that produces a hoop stress of less than 20% specified minimum yield stress need not be nondestructively tested provided it has been visually inspected in accordance with ANSI B31.3, 336.4.2.
- (c) Socket welds and fillet welds shall be fully examined by liquid penetrant.
- (d) Fully penetrated groove welds for branch connections required by ANSI B31.3, 327.4.4 shall be fully examined by inprocess examination in accordance with ANSI B31.3, 336.4.7, and shall also be examined by liquid penetrant after the final pass of the weld. If specified in the engineering design or specifically authorized by the inspector, examination by radiographic or ultrasonic techniques may be substituted for the examinations required by this paragraph.
- (e) Nondestructive examination methods, limitations on defects, qualifications of the authorized inspector, and personnel performing the examination shall meet the requirements of ANSI B31.3, 336.
- (f) Test records and written procedures required when conducting nondestructive examinations shall be maintained for the life of the piping system or until such time as a reexamination is conducted.
- (g) Records and certifications pertaining to materials, components, and heat treatment as required by ANSI B31.3, 336.5.1(c) and 336.5.3(d) shall be maintained for the life of the system.

#### **§14.2434 Purging of Piping Systems**

Piping systems shall be purged of air or gas in a safe manner. Blow-down and purge connections shall be provided to facilitate purging of all process and flammable gas piping. Such connections shall be installed to eliminate all hazards to a safe operating condition.

#### **§14.2437 Pressure and Relief Valves in Piping**

- (a) Pressure relieving safety devices shall be installed to minimize damage to equipment and personnel. The means for adjusting relief valve set pressure shall be sealed.
- (b) Thermal expansion relief valves shall be installed to prevent overpressure in any section of cold liquid or cold vapor piping which can be isolated by valves.
- (c) Thermal expansion relief valves shall be set to discharge above the maximum pressure normally expected in the line but less than the rated test pressure of the line they protect.

- (d) Discharge from the valves shall be directed to minimize hazard to personnel or equipment and the discharge location shall be approved by the Commission.

**§14.2440 Corrosion Control**

- (a) Underground and submerged piping shall be protected and maintained in accordance with the National Association of Corrosion Engineers Standard RP-01-69M, Control of External Corrosion of Underground or Submerged Metallic Piping Systems.
- (b) Austenitic stainless steels and aluminum alloys shall be protected to minimize corrosion and pitting from corrosive atmospheric and industrial substances during storage, construction, fabrication, testing, and service.

## **SUBCHAPTER F**

### **INSTRUMENTATION AND ELECTRICAL SERVICES**

#### **§14.2501 Liquid Level Gauging**

- (a) LNG containers shall be equipped with liquid level gauging devices. Density variations shall be considered in the selection of the gauging device. Consideration shall be given to a secondary or backup gauge. At least one of these gauges shall be replaceable without taking the container out of operations.
- (b) When the container filling rate is greater than 1.0% per day, the container shall be provided with a high-liquid-level alarm which shall be separate from the liquid level gauging device. The alarm shall be set so that the operator will have sufficient time to stop the flow without exceeding the maximum permissible filling height, and shall be located so that it is visible and audible to personnel controlling the filling. A high-liquid-level flow cutoff device, if used, shall not substitute for the alarm.
- (c) Containers with a capacity of 93,240 gallons or less which are continuously attended during the filling operation may be equipped with trycocks in lieu of the high-liquid-level alarm.

#### **§14.2504 Pressure Gauges**

LNG containers shall be equipped with a pressure gauge connected to the container at the point above the maximum intended liquid level.

#### **§14.2507 Vacuum Gauges**

Vacuum-jacketed containers shall be equipped with instruments or connections for checking the absolute pressure in the annular space.

#### **§14.2510 Emergency Failsafe**

Facilities shall be designed so that if power or instrument air fails, the system will go into a failsafe condition that will be maintained until the operator can take appropriate action to either reactivate or secure the system.

#### **§14.2513 Electrical Equipment**

- (a) Electrical equipment and wiring shall be installed in accordance with the applicable sections of NEC.
- (b) Fixed electrical equipment and wiring installed within the areas specified in Table 1 of subsection (h) of this section shall comply with the requirements specified.
- (c) Seals, barriers, or other means used to comply with this section shall be designed to prevent the passage of flammable fluids through the conduit, stranded conductors, and cables. Such means may include but not be limited to:
  - (1) a physical interruption of the conduit run and of the stranded conductors through the use of an adequately vented junction box containing terminal strip or busbar connections;



- (2) an exposed section of MI cable using suitable fittings; or
- (3) an exposed section of single conductor which is incapable of transmitting gases or vapors.
- (d) A primary seal shall be provided between the flammable fluid system and the electrical conduit wiring system. If the failure of the primary seal would allow the passage of flammable fluids to another portion of the conduit or wiring system, an additional seal shall be provided to prevent the passage of the flammable fluid beyond the additional device or means.
- (e) Unless specifically designed and approved for the purpose, the seals specified in this section are not intended to replace the conduit seals required in NEC.
- (f) Where primary seals are installed, drains, vents, or other devices shall be provided for monitoring purposes to detect flammable fluids and leaking.
- (g) Primary seals shall be designed to withstand the service conditions to which they may be exposed. Additional seals or barriers and interconnecting enclosures shall meet the pressure and temperature requirements of the condition to which they could be exposed in the event of failure of the primary seal, unless other approved means are provided to accomplish this purpose.
- (h) The classified areas described in Table 1 of this section shall not extend beyond an unpierced wall, roof, or solid vaportight partition.

**Table 1**

<b>LOCATION</b>	<b>GROUP D, DIVISION</b>	<b>EXTENT OF CLASSIFIED AREA</b>
<b>LNG Storage Container Area</b>		
Indoors	1	Open area between a high-type dike and container wall where dike wall height exceeds distance between dike and container walls.
Outdoors, aboveground containers (other than small containers that are portable and less than 200 gallons aggregate water capacity)	1	Within 15 feet in all directions from container walls and roof, plus area inside a low-type diked or impounding area up to the height of the dike impoundment.
<b>Pits, Trenches or Sumps Located in or Adjacent to Division 1 or 2 Areas</b>	1	Entire pit, trench or sump.
<b>Transport Vehicle and Container Loading and Unloading</b>		
Outdoors in open air at or above grade	1  2	Within 5 feet in all directions from connections regularly made or disconnected for product transfer.  Between 5 and 15 feet in all directions from a point where connections are regularly made or disconnected, and within the cylindrical volume between the horizontal equator of the sphere and the grade.
<b>Electrical Seals and Vents Specified in Subchapter F of this Title (relating to Instrumentation and Electrical Services)</b>	2	Within 15 feet in all directions from the equipment, and within the cylindrical volume between the horizontal equator and grade.

## **SUBCHAPTER G ENGINE FUEL SYSTEMS**

### **§14.2601 Applicability**

This subchapter applies to the design, installation, inspection, and testing of LNG fuel supply systems for vehicle engines and other engines installed on a vehicle.

### **§14.2604 System Component Qualification**

- (a) Components in the engine compartment normally in contact with LNG shall be suitable for service over a range of temperatures of -260 degrees Fahrenheit to +250 degrees Fahrenheit. Other components not normally in contact with LNG shall be suitable for service over a range of -40 degrees Fahrenheit to +250 degrees Fahrenheit.
- (b) Components outside the engine compartment normally in contact with LNG shall be suitable for service over a range of temperatures from -260 degrees Fahrenheit to +180 degrees Fahrenheit. Other components not normally in contact with LNG shall be suitable for service over a range from -40 degrees Fahrenheit to +180 degrees Fahrenheit.
- (c) Fuel-carrying components (excluding service valves, tubing, and fittings) shall be labeled or stamped with the following:
  - (1) the manufacturer's name or symbol;
  - (2) the model designation;
  - (3) the maximum allowable maximum allowable working pressure;
  - (4) the design temperature range;
  - (5) direction of flow of fuel when necessary for correct installation; and
  - (6) capacity or electrical rating as applicable.

### **§14.2607 Vehicle Fuel Containers**

- (a) Containers shall be designed, tested, and marked or stamped in accordance with DOT Specification 4L or ASME Code, "Rules for the Construction of Pressure Vessels," Section VIII, Division 1, applicable on the date of manufacture.
- (b) The owner of a container shall be responsible for its suitability for continued service.
- (c) Repair or alteration of containers shall comply with the Code under which that container was fabricated. Licensees making repairs or alterations shall file LNG Form 2008 with the Commission.
- (d) Containers shall be equipped with a dip tube or other device so that the maximum filling volume of the container complies with §14.2107 of this title (relating to Stationary LNG Storage Containers).
- (e) Containers shall be constructed so that the unrelieved pressure inside the container shall not exceed the maximum allowable working pressure of the container within a 72-hour period at an ambient temperature of 70 degrees Fahrenheit after the container has been filled with LNG

stabilized at the maximum allowable working pressure and temperature equilibrium has been established.

- (f) Connections for pressure relief valves shall be located and installed to communicate directly with the vapor space.
- (g) Containers shall have permanent identification markings, decals, or stencils to identify:
  - (1) the total volumetric capacity of the container in gallons;
  - (2) the words, "FOR LNG ONLY," in capital letters at least one inch high in a location that is visible after installation; and
  - (3) all inlets and outlets, except relief valves and gauging devices, designating whether they communicate with vapor or liquid space.
- (h) Container appurtenances shall be fabricated of materials suitable for LNG service. Pressure containing metal parts of appurtenances, except fusible elements, shall have a minimum melting point of +1,500 degrees Fahrenheit. Container appurtenances shall have a rated maximum allowable working pressure not less than the maximum allowable working pressure of the container.
- (i) Containers shall be equipped with the pressure relief devices and pressure control valves required by the code or regulations under which the containers were designed. The pressure relief devices and pressure control valves shall communicate directly with the vapor space of the container, and shall be designed to minimize the possibility of tampering. Externally set or adjusted valves shall be provided with a means of sealing the adjustment.
- (j) Valves shall be readily accessible and operable without the use of tools. A shutoff valve shall be installed directly on the container vapor outlet with no intervening fitting other than pressure relief devices and shall be marked with the words, "VAPOR SHUTOFF VALVE." Another shutoff valve shall be installed directly on the container liquid outlet and shall be marked with the words, "LIQUID SHUTOFF VALVE." The markings shall be in capital letters. Decals or stencils are acceptable. Normally closed automatic shutoff valves that are held open by electric current or manually operated shutoff valves may be used.

#### **§14.2610 Installation of Vehicle Fuel Containers**

- (a) Vehicle fuel containers shall comply with the following specifications:
  - (1) Fuel containers on vehicles other than school buses, mass transit, or other vehicles used in public transportation may be located within, below, or above the driver or passenger compartments, provided all connections to the containers are external to or sealed and vented from those compartments. The motor fuel containers installed on a special transit vehicle may be installed in the passenger compartment, provided all connections to the containers are external to or sealed and vented from those compartments.
  - (2) Fuel supply components and containers shall be mounted in a location to minimize damage from collision. No part of a container or its appurtenances shall protrude beyond any part of the vehicle at the point of installation.
  - (3) Fuel systems shall be installed with as much road or ground clearance as practicable, but not less than the minimum road or ground clearance of the vehicle when loaded to its gross vehicle weight rating. The minimum distance shall be measured from the lowest part of the fuel system.

- (4) No portion of a fuel supply container or container appurtenance shall be located ahead of the front axle or behind the rear bumper mounting face of a vehicle. Fuel container valves shall be protected from physical damage using the vehicle structure, valve protectors, or a suitable metal shield.
  - (5) Fuel supply containers located less than eight inches from the exhaust system shall be shielded from direct heat.
  - (6) Mountings shall minimize fretting corrosion between the fuel container and the mounting system by means of rubber insulators or other suitable means.
  - (7) Fuel containers shall not be installed where they would adversely affect the driving characteristics of the vehicle.
  - (8) Fuel containers on school buses or mass transit vehicles shall be installed on the underside of the vehicle, except as specified in subsection (c) of this section. Fuel containers on special transit vehicles shall be installed in a location which will not interfere with vehicle operation.
  - (9) Fuel containers, appurtenances, and connections may be enclosed in a shroud-type structure, provided it is securely attached to the container and liquid-tight. The shroud access doors shall be secured in place by fasteners such as wing nuts or spring-loaded latches and shall not require the use of tools for removal. The use of locks on shroud access doors is prohibited.
- (b) Fuel supply containers shall be connected or mounted to comply with the following specifications:
- (1) Fuel supply container connections shall be external to or sealed and vented from the driver and passenger compartments or any space containing radio transmitters or other spark-producing equipment.
  - (2) Container brackets shall be secured to the vehicle body, bed, or frame with bolts, lock washers and nuts, or self-locking nuts of a size and strength capable of withstanding a static force in any direction of eight times the weight of a full container for vehicles with gross vehicle weights of 19,500 pounds or less, and four times the weight of a full container for vehicles with gross vehicle weights of 19,501 pounds or more. Mounting brackets shall be marked with the manufacturer's name or logo. If self-locking nuts are installed, they shall not be reused once they are removed. Container mounting brackets shall prevent the container from jarring loose, slipping or rotating.
  - (3) Fuel supply containers shall be secured in the mounting brackets by bolts, lock washers, and nuts, or self-locking nuts of a size and strength capable of withstanding a static force applied in any direction eight times the weight of the full container for vehicles with gross vehicle weights of 19,500 pounds or less, and four times the weight of a full container for vehicles with gross vehicle weights of 19,501 pounds or more. If self-locking nuts are installed, the nuts shall not be reused once they are removed.
  - (4) The weight of the fuel container shall not be supported by the outlet, service valves, manifolds, or other fuel connections.
  - (5) Containers shall be secured to a school bus, mass transit, or special transit vehicle frame excluding the floor by container fastenings or mounting brackets described in subsection (b) of this section. The fastenings or brackets shall be secured to the frame, backing plates, or other supporting structure without compromising the strength of that structure.

- (c) Roof-mounted containers are allowed if the vehicle was originally designed and manufactured to have roof-mounted containers or if the original manufacturer approves the design of the structure mounting. Vehicles shall not be modified to have roof-mounted containers.
- (d) Container markings shall be readable after a container is permanently installed on a vehicle. A portable lamp or mirror may be used to read markings.
- (e) Where an LNG container is substituted for the fuel container installed by the original manufacturer of the vehicle, whether or not that fuel container was for LNG, the LNG container shall either fit within the space in which the original fuel container was installed or comply with subsection (a) of this section.
- (f) If necessary, a plumbing chamber door shall be provided in the sidewall of the school bus, mass transit, or special transit vehicle to allow for easy access for filling or securing the service valve in the event of an emergency. The plumbing chamber door shall be hinged and latched, but not locked.

#### **§14.2613 Engine Fuel Delivery Equipment**

- (a) Vaporizers shall completely vaporize the LNG and heat the vapor to the appropriate temperature prior to the vapor entering the pressure regulator when the vaporizer is subjected to the maximum fuel flow rate. Vaporizers shall be permanently marked at a readily visible point with the maximum allowable working pressure of the fuel-containing portion of the vaporizer. Engine exhaust gases may be used as a direct source of heat to vaporize the fuel if the materials of construction of those parts of the vaporizer in contact with the exhaust gases are resistant to corrosion from those gases.
- (b) Pressure regulator inlets and chambers shall have a maximum allowable working pressure of at least the maximum allowable working pressure of the container.
- (c) Pressure gauges shall be designed for the pressure and temperature conditions to which they may be subjected with a burst pressure safety factor of at least four. Dials shall be graduated to read at least 1.2 times the pressure at which a pressure relief device is set to function. Gauges shall have an opening not to exceed 0.055 inches (Number 54 drill size) at the inlet connection.
- (d) Pipe, tubing, and fittings between the vehicular fuel container and the pressure regulator shall be designed to withstand a pressure of at least two times the maximum allowable working pressure of the container.
  - (1) Gaskets and packing material shall be suitable for the intended service.
  - (2) Pipe shall be stainless steel, brass, or copper, and shall comply with the following:
    - (A) stainless steel pipe: ANSI B36.19, Specification for Stainless Steel Pipe (ASTM A 312);
    - (B) brass pipe: ANSI H27.1, Specification for Seamless Red Brass Pipe, Standard Size (ASTM B 43);
    - (C) copper pipe: ANSI H26.1, Specification for Seamless Copper Pipe, Standard Sizes (ASTM B 42).
  - (3) Tubing shall be stainless steel, brass, or copper, and shall comply with the following:
    - (A) stainless steel tubing: ANSI B31.3, Specification for Seamless and Welded Austenitic Steel Tubing for General Service (ASTM A 269);

- (B) copper tubing: Type K or L, ANSI H23.1, Specification for Seamless Copper Water Tube (ASTM B 88);
  - (C) copper tubing: ANSI H23.5, Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service (ASTM B 280); or
  - (D) brass tubing: ANSI H36.1, Specification for Seamless Brass Tube (ASTM B 135).
- (4) Pipe and tube fittings shall be stainless steel, brass, or copper. Pipe joints shall be threaded, welded, or brazed. Tubing joints shall be flared, welded, brazed, or made with tube fittings.

#### **§14.2616 Installation of Venting Systems and Monitoring Sensors**

- (a) Pressure relief devices and pressure carrying components installed within a closed compartment shall be vented to the outside of the vehicle in a suitable location.
- (b) Vents shall not exit into a wheel well.
- (c) Vents shall not restrict the operation of a fuel container pressure relief device or pressure relief device channel. Vent lines shall be located and secured to permit the required relief discharge capacity and to minimize the possibility of physical damage.
- (d) Vent lines shall be equipped with a means to minimize the possibility of water or other foreign material from entering the relief device or vent line. Such means shall remain in place except when the relief device operates and shall permit the relief device to operate at the required capacity.
- (e) Escaping gas shall not impinge on fuel supply containers and shall not be directed into wheel wells, at individuals or other vehicles in traffic, at the engine air intake, or in a manner that would create a hazard.
- (f) Safety relief valve discharge shall be directed or vented so that any gas released will not directly impinge upon containers, any part of the vehicle, adjacent individuals or vehicles, or the inside of the passenger or luggage compartment.
- (g) At least two monitoring sensors shall be installed on all LNG-fueled vehicles to detect hazardous levels of LNG. Sensors shall activate at not more than 20% of the lower flammable limit of LNG. If the level exceeds one-fifth of the LFL, the sensor shall either shut the system down or activate an audible and visual alarm. The number of sensors to be installed shall comply with the area of coverage for each sensor and the size of the vehicle. The sensors shall be installed and maintained in accordance with the manufacturer's instructions.

#### **§14.2619 Installation of Piping**

- (a) Piping that carries fuel shall be fabricated to minimize vibration and shall be shielded or installed in a protected location to prevent damage from unsecured objects.
- (b) Fuel lines shall be mounted, braced, and supported to minimize vibration and protected against damage, corrosion, or breaking due to strain or wear. Fuel lines shall be supported at least every 21 to 27 inches.
- (c) Fuel lines passing through a panel shall be protected against abrasion by grommets or similar devices such as fittings, which shall snugly fit both the supply lines and the holes in the panel.
- (d) Fuel lines shall have a minimum clearance of eight inches from the engine exhaust system or shall be shielded against direct heat.

- (e) Piping or tubing shall pass through the floor of a vehicle directly beneath or adjacent to the container. If a branch line is required, the tee connection shall be in the main fuel line under the floor and outside the vehicle.
- (f) Hydrostatic relief valves shall be installed in each section of piping or tubing in which LNG can be isolated between shutoff valves to relieve to a safe atmosphere the pressure which could develop from the trapped fuel. The pressure relief valve shall have a pressure not greater than the maximum allowable working pressure of the line it protects.
- (g) Joint compound or tape acceptable for use with LNG shall be applied to all male pipe threads prior to assembly.
- (h) Piping and fittings shall be clean and free from cutting or threading burrs and scaling. The ends of all piping shall be reamed.
- (i) Bends in piping or tubing are prohibited if the bend weakens the pipe or tubing. Bends shall be made by bending tools designated for this purpose.
- (j) Joints or connections shall be located only in an accessible location.
- (k) Fuel connections between a tractor and trailer or other vehicle units are prohibited.

#### **§14.2622 Installation of Valves**

- (a) Valves, valve packings, gaskets, and seats shall be suitable for the intended service and shall comply with the following:
  - (1) Shutoff valves shall have a maximum allowable working pressure of at least the maximum allowable working pressure of the container. Leakage shall not occur at less than 1 1/2 times the maximum allowable working pressure of the valve.
  - (2) Valve parts, except gaskets, packing, and seats that come in contact with the fuel shall be stainless steel, brass, or copper.
- (b) Valves shall be securely mounted and shielded or installed in a protected location to minimize damage from vibration and unsecured objects.
- (c) In vehicles whose engines do not incorporate an automatic shutoff in the engine fuel system, a positive shutoff valve shall be installed in the fuel supply line at the inlet to the pressure regulator. The shutoff valve shall automatically close and prevent the flow of fuel to the engine when the ignition switch is off or in the accessory position, or when the engine is not running and the ignition switch is on.
- (d) When multiple fuel systems are installed on the vehicle, automatic valves shall be provided as necessary to shut off the fuel not being used.
- (e) Fueling systems shall be equipped with a backflow check valve which will prevent the return of gas from the container to the filling connection.
- (f) Valves shall be installed so that their weight is not placed on or supported by the attached lines.

#### **§14.2625 Installation of Pressure Gauges**

- (a) Pressure gauges located within driver or passenger compartments shall be installed so that no gas will flow through the gauge in the event of failure. Installed gauges shall be readily visible by the driver.

- (b) Pressure gauges installed outside driver or passenger compartments shall be equipped with a limiting orifice, a shatter-proof dial lens, and a body relief.
- (c) Gauges shall be securely mounted, shielded, and installed in a protected location to prevent damage from vibration and unsecured objects.

#### **§14.2628 Installation of Pressure Regulators**

- (a) Automatic pressure reducing regulators shall be installed to reduce the fuel container pressure to a level consistent with the maximum allowable working pressure required by the engine fuel system, if the primary relief valve setting to the fuel container exceeds the maximum allowable engine inlet fuel pressure, and automatic pressure reducing regulator.
- (b) Means shall be provided to prevent regulator malfunctions due to low temperatures.
- (c) Regulators shall be installed so that their weight is not placed on or supported by the attached gas lines.

#### **§14.2631 Wiring**

- (a) Wiring shall be installed, supported, and secured in a manner to prevent damage due to vibration, shock, strains, wear, or corrosion.
- (b) Wiring shall be sized and fuse-protected with the size and fuse rating adequate for the current draw.

#### **§14.2634 Vehicle Fueling Connection**

- (a) Vehicle fueling connections shall provide for the reliable and secure connection of the fuel system containers to a source of LNG.
- (b) Fueling connections shall be designed for the pressure expected under normal conditions and corrosive conditions which might occur.
- (c) Fueling connections shall prevent escape of gas when the connector is not properly engaged or becomes separated.
- (d) Refueling receptacles on engine fuel systems shall be firmly supported and shall:
  - (1) receive the fueling connector and accommodate the maximum allowable working pressure of the vehicle fuel system;
  - (2) incorporate a means to prevent the entry of dust, water, and other foreign material. If the means used is capable of sealing system pressure, it shall be capable of being depressurized before removal; and
  - (3) have a different fueling connection for each pressure base vehicle fuel system.

#### **§14.2637 Signs and Labeling**

- (a) Signs or labels shall be readily visible before and during transfer operations, shall be weather-resistant, and shall be located as specified in Table 1 of this section.



**Table 1**

<b>Requirements for Signs or Labels</b>	<b>Fueling Connection Receptacle</b>	<b>Engine Compartment</b>
Capital letters at least 2" high (any color letters with contrasting background): LNG FUELED VEHICLE	*	*
Any color letters with contrasting background: Name of Licensee and License Number (not required for systems installed by OEM or OEM's subcontractor)		*
Any color letters and numbers with contrasting background: Maximum allowable working pressure _____	*	
Any color letters with contrasting background: Container Capacity _____ Gallons	*	

- (b) Vehicles shall be identified with a weather-resistant diamond-shaped label located on an exterior vertical or near vertical surface on the lower right rear of the vehicle (excluding the bumper) inboard of any other markings. The label shall be at least 4 3/4 inches by 3 1/4 inches. The marking shall consist of a border and the capital letters, "LNG"; the letters shall be at least one inch tall, and be silver or white reflective luminous material on a blue or black background.
- (c) Upon completion of a vehicle conversion, the licensee making the conversion shall affix to the vehicle an identification tag or decal in a location that is easily readable. The tag or decal shall contain letters that indicate the licensee's name, current license number, and the year and month the conversion was made.

#### **§14.2640 System Testing**

- (a) The complete LNG engine fuel system shall be leak tested.
- (b) After installation, the piping and connections that are subject to container pressure shall be checked with a non-ammonia soap solution or a leak detector instrument after the equipment is connected and pressurized to its 90% of the maximum allowable working pressure of the container.
- (c) If the completed LNG engine fuel system is leak tested with natural gas, the testing shall be done under adequately ventilated conditions.
- (d) If an LNG container is involved in an accident or fire causing damage to the container, the container shall be replaced or removed and returned to a currently licensed Category 15, 20, or 50 licensee to be inspected and retested in accordance with the original manufacturer's specifications. The licensee who performs any repair, modification, or testing of a container shall file LNG Form 2008 with the Commission before the container is returned to service.

- (e) If a vehicle is involved in an accident or fire causing damage to any part of the LNG engine fuel system, the system shall be replaced or repaired as provided in these regulations and retested before it is returned to service.

#### **§14.2643 Maintenance and Repair**

- (a) The owner or user or both shall maintain containers, container appurtenances, piping systems, venting systems, and other components in a safe condition.
- (b) Repair or alteration of pressure relief devices and fuel lines is prohibited. Damaged pressure relief devices and fuel lines shall be replaced.

## **SUBCHAPTER H LNG TRANSPORTS**

### **§14.2701 DOT Requirements**

- (a) This subchapter applies to transport containers used in the transportation and distribution of LNG.
- (b) LNG transports shall comply with the requirements of DOT specification MC-338 and the applicable parts of Title 49, Code of Federal Regulations, Parts 171 - 180.

### **§14.2704 Registration and Transfer of LNG Transports**

- (a) A person who operates an LNG transport as defined in this chapter, regardless of who owns the transport, shall register the transport with the Commission in the name or names under which the operator conducts business in Texas prior to the transport being used in LNG service in Texas.
  - (1) To register a unit previously unregistered in Texas, the operator of the unit shall:
    - (A) pay to the Commission the \$270 registration fee for each transport truck, semi-trailer, or other motor vehicle equipped with an LNG cargo tank; and
    - (B) file a properly completed LNG Form 2007.
  - (2) To register a unit which was previously registered in Texas but for which the registration has expired, the operator of the unit shall:
    - (A) pay to the Commission the \$270 registration fee;
    - (B) file a properly completed LNG Form 2007;
    - (C) file a copy of the latest test results if an expired unit has not been used in the transportation of LNG for over one year.
  - (3) To transfer a unit, the new owner of the transport shall:
    - (A) pay the \$100 transfer fee for each unit; and
    - (B) file a properly completed LNG Form 2007.
- (b) **The Commission may also request an operator registering or transferring any unit to file a copy of the Manufacturer's Data Report of a copy of the DOT certification issued by the manufacturer and/or subframer who prepared the unit for road use, or any other documentation to show the container complies with MC-338.**
- (c) When all registration or transfer requirements have been met, the Commission shall issue LNG Form 2004 or letter of authority which shall be properly affixed as instructed on the decal or letter or maintained on the bobtail or transport trailer. LNG Form 2004 or letter of authority shall authorize the licensee or ultimate consumer to whom it has been issued and no other person to operate such unit in the transportation of LNG and to fill the transport containers.
  - (1) A person shall not operate an LNG transport unit or introduce LNG into a transport container in Texas unless the LNG Form 2004 or letter of authority has been properly affixed as instructed on the decal or the letter or maintained on the bobtail or transport trailer or unless its operation has been specifically approved by the Commission.

- (2) LNG Form 2004 or letter of authority shall not be transferable by the person to whom it has been issued, but shall be registered by any subsequent licensee or ultimate consumer prior to the unit being placed into LNG service.
- (3) This section shall not apply to:
  - (A) **a container manufacturer/fabricator from introducing a reasonable amount of LNG into a newly constructed container in order to properly test the vessel, piping system, and appurtenances prior to the initial sale of the container. The LNG shall be removed from the transport container prior to the transport leaving the manufacturer's or fabricator's premises; or**
  - (B) a person introducing a maximum of 150 gallons into a newly constructed transport container when such container will provide the motor fuel to the chassis engine for the purpose of allowing the unit to reach its destination.
- (4) The Commission shall not issue an LNG Form 2004 or letter or authority if the Commission or a Category 15 or 50 licensee determines that the transport is unsafe for LNG service.

#### **§14.2705 Decals or Letter of Authority and Fees**

If an LNG Form 2004 decal or letter or authority on a unit currently registered with the Commission is destroyed, lost, or damaged, the operator of that vehicle shall obtain a replacement decal or letter of authority by filing LNG Form 2018B and a \$50 replacement fee with the Commission.

#### **§14.2707 Testing Requirements**

- (a) Transport container units required to be registered with the Commission shall be tested at least once every five years by a Category 15, 20, or 50 licensee.
  - (1) Documentation of the required testing shall be filed by the Category 15, 20, or 50 licensee.
  - (2) The results of any test required under this section shall clearly indicate whether the transport container unit is safe for LNG service. The Category 15, 20, or 50 licensee shall mail LNG Form 2008 to the Commission within 30 calendar days of the due date of any tests required under this section.
  - (3) If evidence of any unsafe condition is discovered as a result of any tests performed under this section, the transport container unit shall be immediately removed from LNG service and shall not be returned to LNG service until the Commission notifies the licensee in writing that the transport container unit may be returned to LNG service.
- (b) Containers shall be tested in accordance with 49 CFR §338.
- (c) Containers shall be inspected for corroded areas, dents, or other conditions (including leakage under test pressure) which could render the container unsafe for LNG service.

#### **§14.2710 Markings**

- (a) LNG transports and container delivery units in LNG service shall be marked with the name of the licensee or the ultimate consumer operating the unit. The name shall be in letters at least two inches in height and in sharp color contrast to the background. The Commission will determine whether the marking is sufficient to properly identify the operator.

- (b) Other markings shall comply with other DOT marking requirements.
- (c) If a transport unit is loaned or leased for a period of time not to exceed 30 days, the unit may have painted or permanently affixed thereon, in lieu of the name of the licensee operating the transport unit, the name of the owner of the transport unit in letters at least two inches in height.

#### **§14.2713 Pressure Gauge**

Transport containers shall be equipped with a pressure gauge for LNG service which shall be maintained in good operating condition at all times. An isolation valve shall be installed between the container and the pressure gauge.

#### **§14.2716 Supports**

Transport containers shall be supported as required by DOT Regulations, 49 CFR §178.337-13.

#### **§14.2719 Electrical Equipment and Lighting**

LNG transports and container delivery units shall not be equipped with an artificial light other than electrical. Lighting circuits shall have suitable overcurrent protection (fuses or automatic circuit breakers). Wiring shall have sufficient current capacity and mechanical strength, and shall be secured, insulated, and protected against physical damage.

#### **§14.2722 Liquid Level Gauging Devices**

Truck and trailer containers shall be equipped with a liquid level gauging device of approved design, such as a fixed tube device. Fixed tube devices shall be arranged so that the maximum liquid level to which the container may be filled is set at the maximum permitted for the container based on an initial liquid temperature not to exceed 40 degrees Fahrenheit. An isolation valve shall be installed between the container and the liquid level gauging device.

#### **§14.2725 Exhaust System**

No part of the exhaust system on any LNG transport or container delivery unit shall be located less than six inches unless shielded from any piping, pump, and/or compressor. The exhaust system discharge shall not impinge on the containers, piping, or related appurtenances.

#### **§14.2728 Extinguishers Required**

- (a) Transport power units shall be equipped with at least one fire extinguisher having a UL rating of 10 B:C or more, and shall be labeled or marked with that rating.
- (b) Fire extinguishers shall be fully charged, in good mechanical condition, and accessible for use. Fire extinguishers shall be mounted with a mounting bracket which will allow visual determination of being fully charged.

#### **§14.2731 Manifests**

Manifests or bills of lading shall be covered by permanent shipping papers authorized by the DOT.

#### **§14.2734 Transfer of LNG on Public Highways, Streets, or Alleys**

Transferring LNG on public highways, streets, or alleys is prohibited except in an emergency or where the containers are on machinery being used for the construction or maintenance of such public highways, streets, or alleys.

#### **§14.2737 Parking of LNG Transports and Container Delivery Units, and Use of Chock Blocks**

- (a) LNG transport or container delivery units shall not be parked on any public street, highway, or alley, except in an emergency, or when in connection with normal duties, meals, or rest stops. Such units shall not be parked in a congested area and shall be parked a minimum distance of 50 feet from any building, except buildings devoted exclusively to LNG operations.
- (b) LNG transports shall carry at least two chock blocks designed to effectively prevent the movement of the transport. These blocks shall be used any time the transport is parked and during the transfer of fuel regardless of the level of the surrounding terrain.

#### **§14.2740 Uniform Protection Standards**

- (a) LNG transport units and container delivery units, including appurtenances, shall be maintained in a safe operating condition at all times.
- (b) Any transport unit or container delivery unit discovered to be in an unsafe condition while being operated on a public roadway may be continued in operation only to the nearest place where repairs can safely be made. Such operation shall be conducted only if it is less hazardous to the public than to permit the transport unit or container delivery unit to remain on the public roadway.

#### **§14.2746 Delivery of Inspection Report to Licensee**

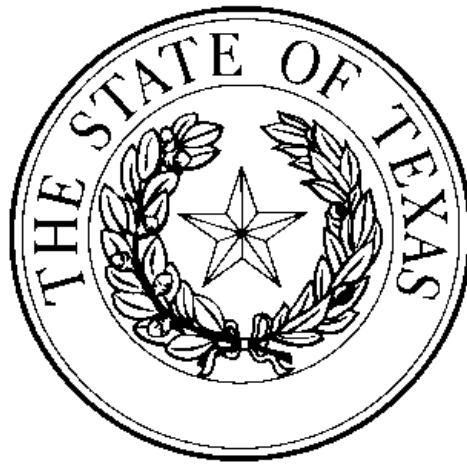
The transport driver of any transport unit receiving an inspection report from the Commission shall deliver that report to the licensee in whose name the transport unit is registered.

#### **§14.2749 Issuance of LNG Form 2004 Decal**

- (a) An LNG Form 2004 decal or letter of authority shall not be issued to any transport that has not been tested as required by §14.2707 of this title (relating to Testing Requirements) at least once in the preceding five years. An LNG Form 2004 decal or letter of authority shall not be issued to any transport that has been determined to be unsafe for LNG service by the Commission or a Category 15, 20, or 50 licensee in accordance with §14.2707 of this title (relating to Testing Requirements).
- (b) An LNG Form 2004 decal or letter of authority, when issued by the Commission and properly affixed as instructed by the decal or letter, or maintained on the bobtail or transport trailer, shall authorize the person to whom it has been issued to operate such unit in the transportation of LNG and to fill the transport containers.
- (c) No person or ultimate consumer shall operate an LNG transport or introduce LNG into such unit in this state unless an LNG Form 2004 decal or letter of authority authorizing its operation has been affixed in accordance with placement instructions on the decal or letter, or maintained in readable condition, or unless such operation has been specifically approved by the Commission.

- (d) The LNG Form 2004 decal or letter of authority is not transferable by the person to whom it has been issued, but shall be registered by any subsequent person or ultimate consumer prior to the vehicle being placed into LNG service.
- (e) This subsection shall not prevent a container manufacturer/fabricator from introducing a reasonable amount of LNG into a newly constructed container in order to properly test the vessel, piping system, and appurtenances prior to the initial sale of the container. The LNG shall be removed from the transport container prior to the unit leaving the container manufacturer/fabricator's premises.
- (f) A maximum of 150 gallons of LNG may be introduced into a newly constructed transport container when such container will provide the motor fuel to the chassis engine for the purpose of providing sufficient fuel to allow the unit to reach its destination.

LAWS OF THE STATE OF TEXAS PERTAINING  
TO  
LIQUEFIED NATURAL GAS REGULATIONS



Revised September 2003



**TEXAS NATURAL RESOURCES CODE, CHAPTER 116 LIQUEFIED  
NATURAL GAS**

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AN ACT

relating to regulation of compressed natural gas and licensing of and insurance coverage for persons engaged in certain work and rules governing registration and identification of motor vehicles using or transporting compressed natural gas; prescribing the powers and duties of the Railroad Commission of Texas and the Department of Public Safety; authorizing certain fees; providing for hearings and judicial review; providing enforcement procedures and civil and criminal penalties; amending Title 3, Natural Resources Code, as amended, by adding Chapter 116; and amending Subsection (c), Section 3, Public Utility Regulatory Act, as amended (Article 1446c, Vernon's Civil Statutes).

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS

SECTION 1. Title 3, Natural Resources Code, as amended, is amended by adding Chapter 116 to read as follows:

# CHAPTER 116. LIQUEFIED NATURAL GAS

## SUBCHAPTER A. GENERAL PROVISIONS

### § 116.001. Definitions

In this chapter:

- (1) "Commission" means the Railroad Commission of Texas.
- (2) "Compressed natural gas" or "CNG" means natural gas primarily consisting of methane in a gaseous state that is compressed and used, stored, sold, transported, or distributed for use by or through a CNG system.
- (3) "Liquefied natural gas" or "LNG" means natural gas primarily consisting of methane in liquid or semisolid state.
- (4) "CNG cylinder" means a cylinder or other container designed for use or used as part of a CNG system.
- (5) "LNG container" means a container designed for use or used as part of an LNG system.
- (6) "CNG system" means a system of safety devices, cylinders, piping, fittings, valves, compressors, regulators, gauges, relief devices, vents, installation fixtures, and other CNG equipment intended for use or used in any building or public place by the general public or in conjunction with a motor vehicle or mobile fuel system fueled by compressed natural gas and any system or facilities designed to be used or used in the compression, sale, storage, transportation for delivery, or distribution of compressed natural gas in portable CNG cylinders, but does not include natural gas facilities, equipment, or pipelines located upstream of the inlet of a compressor devoted entirely to compressed natural gas.
- (7) "LNG system" means a system of safety devices, containers, piping, fittings, valves, compressors, regulators, gauges, relief devices, vents, installation fixtures, and other LNG equipment intended for use or used with a motor vehicle fueled by liquefied natural gas and any system or other facilities designed to be used or used in the sale, storage, transportation for delivery, or distribution of liquefied natural gas.
- (8) "Motor vehicle" means any self-propelled vehicle licensed for highway use or used on a public highway.
- (9) "Compressed natural gas cargo tank" means a container built in accordance with A.S.M.E. or D.O.T. specifications and used to transport compressed natural gas for delivery.
- (10) "Liquefied natural gas cargo tank" means a container built in accordance with A.S.M.E. or D.O.T. specifications and used to transport liquefied natural gas for delivery.
- (11) "Mobile fuel system" means a CNG or LNG system to supply natural gas fuel to an auxiliary engine other than the engine used to propel the vehicle or for other uses on the vehicle.
- (12) "Motor fuel system" means a CNG or LNG system to supply natural gas as a fuel for an engine used to propel the vehicle.
- (13) "Registrant" means any individual exempt from the licensing requirements as established by rule of the commission who is required to register with the commission, any person qualified by examination by the commission, or any person who applies for registration with the

commission. Registrant includes an employee of a licensee who performs CNG-related or LNG-related activities.

### **§ 116.002. Exceptions**

This chapter does not apply to:

- (1) the production, transportation, storage, sale, or distribution of natural gas that is not included in the definition of compressed natural gas or liquefied natural gas;
- (2) the production, transportation, storage, sale, or distribution of natural gas that is subject to commission jurisdiction under Subtitle A or B, Title 3, Utilities Code;
- (3) pipelines, fixtures, and other equipment used in the natural gas industry that are not used or designed to be used as part of a CNG or LNG system; or
- (4) pipelines, fixtures, equipment, or facilities to the extent that they are subject to the safety regulations promulgated and enforced by the commission pursuant to Chapter 117, Natural Resources Code, or Subchapter E, Chapter 121, Utilities Code.

## **SUBCHAPTER B. ADMINISTRATIVE PROVISIONS**

### **§ 116.011. Administration**

The commission shall administer and enforce this chapter and rules and standards adopted under this chapter relating to compressed natural gas and liquefied natural gas.

### **§ 116.012. Rules and Standards**

To protect the health, safety, and welfare of the general public, the commission shall adopt necessary rules and standards relating to the work of compression and liquefaction, storage, sale or dispensing, transfer or transportation, use or consumption, and disposal of compressed natural gas or liquefied natural gas.

### **§ 116.013. National Codes**

The commission may adopt by reference in its rules all or part of the published codes of nationally recognized societies as standards to be met in the design, construction, fabrication, assembly, installation, use, and maintenance of CNG or LNG components and equipment.

### **§ 116.014. Fees**

- (a) Fees collected by the commission under Section 116.034 of this code for training, examinations, and seminars must be deposited in a special fund in the state treasury designated as the CNG and LNG examination fund. The commission shall use money in this fund to pay the cost of training, examinations, and seminars sponsored or administered by the commission.
- (b) Except as provided by Subsection (a) of this section, money collected by the commission as fees under this chapter shall be deposited in the general revenue fund.

### **§ 116.015. Entry on Property; Inspection and Investigation**

- (a) An employee, agent, or inspector of the commission may enter the premises of a licensee under this chapter or any building or other premises open to the public or inspect any CNG or LNG system or motor vehicle equipped with CNG or LNG equipment at any reasonable time for the purpose of determining and verifying compliance with this chapter and rules of the commission adopted under this chapter.
- (b) Any authorized representative of the LPG division may enter any building or premises where an accident has occurred in which CNG or LNG was a probable cause for purposes of investigating the cause, origin, and circumstances of such accident. The LPG division may request that any state or local authority having jurisdiction take appropriate action as may be necessary for preservation of property and premises.

### **§ 116.016. Limitations on Rulemaking Authority**

- (a) The commission may not adopt rules restricting advertising or competitive bidding by a licensee or registrant except to prohibit false, misleading, or deceptive practices.
- (b) In its rules to prohibit false, misleading, or deceptive practices, the commission may not include a rule that:
  - (1) restricts the use of any medium for advertising;
  - (2) restricts the use of a licensee or registrant's personal appearance or voice in an advertisement;
  - (3) relates to the size or duration of an advertisement by the licensee or registrant; or
  - (4) restricts the licensee or registrant's advertisement under a trade name.

## **SUBCHAPTER C. LICENSING AND REGISTRATION**

### **§ 116.031. License Requirement**

- (a) Unless otherwise provided in this chapter or by commission rule, a person shall be required to obtain a license from the commission to engage in any of the following activities :
  - (1) work that includes the manufacture, assembly, repair, testing, sale, installation, or subframing of CNG cylinders or LNG containers for use in this state;
  - (2) systems work that includes the sale, installation, modification, or servicing of CNG or LNG systems for use in this state, including the installation, modification, or servicing by any person, except a political subdivision, of a CNG or LNG motor fuel system or mobile fuel system on a vehicle used in the transportation of the general public; or
  - (3) product work that includes the sale, storage, transportation for delivery, or dispensing of CNG or LNG in this state.
- (b) A license obtained by a partnership, corporation, or other legal entity extends to the entity's employees who are performing CNG or LNG work, provided that each employee is qualified and registered as required by rules adopted by the commission.

- (c) No license is required by an original vehicle manufacturer or a subcontractor of such manufacturer for the installation and sale of a new CNG or LNG system when such system is installed on a new original vehicle fueled by CNG or LNG.
- (d) The commission by rule may provide for the annual registration of all individuals performing CNG-related or LNG-related activities who are exempt from the licensing requirements of the commission. Employees of a political subdivision are not required to be licensed or registered under this chapter.

#### **§ 116.032. License and Registration Fees**

- (a) The commission shall adopt rules establishing registration fees and license categories and license fees to be charged for application for and issuance and renewal of a license or registration.
- (b) The commission by rule may establish reasonable fees for each category of license.

#### **§ 116.033. Application and Renewal Procedures**

- (a) The commission shall adopt rules establishing procedures for submitting and processing applications for issuance and renewal of licenses and for registration.
- (b) A person who is otherwise eligible to renew a license or registration may renew an unexpired license or registration by paying the required renewal fee to the commission before the expiration date of the license or registration. A person whose license or registration has expired may not engage in activities that require a license or registration until the license or registration has been renewed.
- (c) A person whose license or registration has been expired for 90 days or less may renew the license or registration by paying to the commission a renewal fee that is equal to 1-1/2 times the normally required renewal fee.
- (d) A person whose license or registration has been expired for more than 90 days but less than one year may renew the license or registration by paying to the commission a renewal fee that is equal to two times the normally required renewal fee.
- (e) A person whose license or registration has been expired for one year or more may not renew the license or registration. The person may obtain a new license or registration by complying with the requirements and procedures, including the examination requirements, for obtaining an original license or registration.
- (f) A person who was licensed or registered in this state, moved to another state, and is currently licensed or registered and has been in practice in the other state for the two years preceding the date of application may obtain a new license or registration without reexamination. The person must pay to the commission a fee that is equal to two times the normally required renewal fee for the license or registration.
- (g) Not later than the 30th day before the date a person's license or registration is scheduled to expire, the commission shall send written notice of the impending expiration to the person at the person's last known address according to the records of the commission.

#### **§ 116.034. Examination and Seminar Requirements**

- (a) The commission shall adopt rules providing the training, examination, and seminar attendance requirements for persons who are required or who wish to be licensed or registered under this chapter.
- (b) The commission may adopt a reasonable fee to cover the cost of any training, examination, or seminar required by and sponsored or administered by the commission.
- (c) Before a license or registration may be issued, the person to be licensed or registered must satisfactorily complete the training, examinations, and seminars required by the commission.
- (d) Not later than the 30th day after the date a person takes a licensing or registration examination under this chapter, the commission shall notify the person of the results of the examination.
- (e) If the examination is graded or reviewed by a testing service:
  - (1) the commission shall notify the person of the results of the examination not later than the 14th day after the date the commission receives the results from the testing service; and
  - (2) if notice of the examination results will be delayed for longer than 90 days after the examination date, the commission shall notify the person of the reason for the delay before the 90th day.
- (f) The commission may require a testing service to notify a person of the results of the person's examination.
- (g) If requested in writing by a person who fails a licensing or registration examination administered under this chapter, the commission shall furnish the person with an analysis of the person's performance on the examination.
- (h) The commission shall recognize, prepare, or administer continuing education programs for its licensees and registrants. A licensee or registrant must participate in the programs to the extent required by the commission to keep the person's license.

#### **§ 116.0345. License or Registration by Endorsement**

The commission may waive any prerequisite to obtaining a license or registration for an applicant after reviewing the applicant's credentials and determining that the applicant holds a license or registration issued by another jurisdiction that has licensing requirements substantially equivalent to those of this state.

#### **§ 116.0346. Provisional License or Registration**

- (a) The commission may issue a provisional license or registration to an applicant currently licensed or registered in another jurisdiction who seeks a license or registration in this state and who:
  - (1) has been licensed or registered in good standing for at least two years in another jurisdiction, including a foreign country, that has licensing or registration requirements substantially equivalent to the requirements of this chapter;
  - (2) **has passed a national or other examination recognized by the commission relating to the activities regulated under this chapter; and**

- (3) is sponsored by a person licensed or registered by the commission under this chapter with whom the provisional license or registration holder will practice during the time the person holds a provisional license or registration.
- (b) The commission may waive the requirement of Subsection (a)(3) for an applicant if the commission determines that compliance with that subsection would be a hardship to the applicant.
- (c) A provisional license or registration is valid until the date the commission approves or denies the provisional license or registration holder's application for a license or registration. The commission shall issue a license or registration under this chapter to the provisional license or registration holder if:
  - (1) the provisional license or registration holder is eligible to be licensed or registered under Section 116.0345; or
  - (2) the provisional license or registration holder:
    - (A) passes the part of the examination under Section 116.034 that relates to the applicant's knowledge and understanding of the laws and rules relating to the activities regulated under this chapter in this state;
    - (B) meets the academic and experience requirements for a license or registration under this chapter; and
    - (C) satisfies any other licensing or registration requirements under this chapter.
- (d) The commission must approve or deny a provisional license or registration holder's application for a license or registration not later than the 180th day after the date the provisional license or registration is issued. The commission may extend the 180-day period if the results of an examination have not been received by the commission before the end of that period.
- (e) The commission may establish a fee for provisional licenses or registrations in an amount reasonable and necessary to cover the cost of issuing the license or registration.

#### **§ 116.035. Denial of License**

The commission may deny issuance or renewal of a license or registration to any person who fails to qualify under the requirements of this chapter and rules adopted by the commission under this chapter. The commission shall give written notice to an applicant for the issuance or renewal of a license or for registration of the denial of the license or registration and the reasons for denial.

#### **§ 116.036. Insurance Requirement**

- (a) All licensees must acquire and maintain appropriate workers' compensation or coverage for its employees under policies of work-related accident, disability, and health insurance, including coverage for death benefits, from an insurance carrier authorized to provide coverage in this state and other insurance coverage required by the commission in the amounts required by the commission.
- (b) Notwithstanding Subsection (a) of this section, a state agency or institution, county, municipality, school district, or other governmental subdivision may submit evidence of workers' compensation coverage by self-insurance if permitted by the Texas Workers' Compensation Act (Article 8308-1.01 et seq., Vernon's Texas Civil Statutes).



- (c) The commission shall adopt rules establishing specific requirements for insurance coverage under this chapter and evidence of such coverage. The types and amounts of insurance coverage required by the commission shall be based on the type and category of licensed activity. The commission by rule may allow a licensee to self-insure under Subsection (a) or (e) and by rule shall establish standards for that self-insurance.
- (d) The commission may not issue or renew a license, and a licensee may not perform any licensed activity unless the insurance coverage required by the commission's rules is in effect and evidence of that coverage is filed with the commission as required by commission rule.
- (e) Every motor vehicle operated in this state as a conveyance for a CNG or an LNG cargo tank must meet motor vehicle insurance requirements established by the commission.

### **§ 116.037. Disciplinary Action**

- (a) The commission shall notify a licensee or registrant in writing if it finds probable violation or noncompliance with this chapter or the rules adopted under this chapter.
- (b) The notice shall specify the particular acts, omissions, or conduct comprising the alleged violation and shall designate a date by which the violation must be corrected or discontinued.
- (c) The licensee or registrant shall report timely compliance or shall request extension of time for compliance if considered necessary.
- (d) If a licensee or registrant objects to the complaint or requirements under this section, or if the commission determines that the licensee or registrant is not proceeding adequately to compliance, then, on written request of the licensee or registrant or order of the commission, a public hearing must be conducted.
- (e) If the commission or division determines that the probable violation or noncompliance constitutes an immediate danger to the public health, safety, and welfare, it shall require the immediate cessation of the probable violation or noncompliance and proceed with a hearing.
- (f) The commission shall revoke, suspend, or refuse to renew a license or registration or shall reprimand the licensee or registrant if the commission finds that the licensee or registrant has violated or failed to comply with or is violating or failing to comply with this chapter or a rule adopted under this chapter.
- (g) The commission may place on probation a person whose license or registration is suspended. If a license or registration suspension is probated, the commission may require the person:
  - (1) to report regularly to the commission on matters that are the basis of the probation;
  - (2) to limit practice to the areas prescribed by the commission; or
  - (3) to continue or review professional education until the person attains a degree of skill satisfactory to the commission in those areas that are the basis of the probation.
- (h) Any party to a proceeding before the commission is entitled to judicial review under the substantial evidence rule.

### **§ 116.038. Staggered Renewal of Licenses**

The commission by rule may adopt a system under which license and registration fees required by Section 116.032 of this code expire on various dates during the year. For the year in which the license and registration expiration dates are changed, license and registration fees payable on a specified date

shall be prorated on a monthly basis so that each licensee shall pay only that portion of the license and registration fees that is allowable to the number of months during which the license and registration is valid. On renewal of the license and registration on the new expiration date, the total license and registration fees are payable.

## **SUBCHAPTER D. MOTOR VEHICLE REGULATION**

### **§ 116.071. Registration Rules**

The commission shall adopt rules relating to the registration of motor vehicles that are equipped with a CNG or LNG cargo tank and motor vehicles used principally to transport compressed natural gas or liquefied natural gas in portable cylinders or containers.

### **§ 116.072. Registration**

- (a) Each motor vehicle that is equipped with a CNG or LNG cargo tank and each motor vehicle used principally to transport CNG or LNG in portable cylinders or containers must be registered with the commission as provided by commission rules.
- (b) The commission may not impose a fee for registration under this section on a motor vehicle owned by a county.
- (c) The commission by rule shall establish a reasonable, nonrefundable annual registration and transfer fee for each CNG or LNG cargo trailer, semitrailer, bobtail, and cylinder-delivery unit registered or transferred as follows:
  - (1) the annual registration fee established by the commission shall not be less than \$100 nor more than \$500; and
  - (2) the annual transfer fee established by the commission shall not be less than \$25 nor more than \$100.

### **§ 116.073. Safety Rules**

The commission shall adopt safety rules relating to the transportation of compressed natural gas and liquefied natural gas in this state.

### **§ 116.074. Cooperation of the Department of Public Safety**

The Department of Public Safety shall cooperate with the commission in administering and enforcing this chapter and rules of the commission relating to regulation of motor vehicles required to be registered under this subchapter.

### **§ 116.075. Application of Other Laws**

This chapter and the rules adopted under this chapter do not modify, amend, or repeal any laws of this state relating to the regulation of motor carriers.

## **SUBCHAPTER E. MISCELLANEOUS PROVISIONS**

### **§ 116.101. Malodorants**

Compressed natural gas must be odorized as provided by Subchapter F, Chapter 121, Utilities Code.

### **§ 116.102. Testing Laboratories**

The commission shall adopt rules relating to testing of CNG and LNG equipment and to the qualifications required of the persons who are to perform those tests.

### **§ 116.103. Warning Tags**

- (a) An employee, agent, or inspector of the commission may declare unsafe or dangerous for service any motor vehicle required to be registered under this chapter or any CNG or LNG equipment or system that is defective or that does not otherwise conform to the safety requirements of this chapter and the rules adopted under this chapter and shall attach a warning tag to the motor vehicle, equipment, or system in a conspicuous location.
- (b) A person may not sell, furnish, deliver, or supply compressed natural gas and liquefied natural gas for use or consumption by or through a motor vehicle or system in a public place or operate a motor vehicle having CNG or LNG equipment to which a warning tag is attached.
- (c) A warning tag may be removed on approval of the commission or by a person designated by the commission to remove the tag. A warning tag may not be removed by any person who is not authorized to remove the tag by the commission.

## **SUBCHAPTER F. ENFORCEMENT**

### **§ 116.141. Injunctive Relief**

- (a) On request of the commission, the attorney general shall bring suit in the name of the state to enjoin a person from violating this chapter or a rule adopted under this chapter.
- (b) A suit for injunction instituted under this section is in addition to other remedies available to the commission under this chapter.
- (c) A suit seeking injunctive relief under this section shall be brought in a district court in Travis County.
- (d) The commission is not required to provide a bond in a suit instituted under this section.

### **§ 116.142. Criminal Penalty**

- (a) A person who knowingly violates this chapter or rules adopted by the commission under this chapter commits an offense.
- (b) An offense under this section is punishable by a fine of not less than \$100 nor more than \$5,000.
- (c) Each day a violation continues constitutes a separate offense.

### **§ 116.143. Administrative Penalty**

- (a) If a person violates this chapter, a rule of the commission adopted under this chapter, or a term, condition, or provision of a license or registration issued by the commission under this chapter and the violation results in pollution of the air or water of this state or poses a threat to the public safety, the person may be assessed a civil penalty by the commission.
- (b) The penalty may not exceed \$10,000 a day for each violation. Each day a violation continues may be considered a separate violation for purposes of penalty assessments.
- (c) In determining the amount of the penalty, the commission shall consider the person's history of previous violations of this chapter, the seriousness of the violation, any hazard to the health or safety of the public, and the demonstrated good faith of the person charged.

### **§ 116.144. Penalty Assessment Procedure**

- (a) A civil penalty under Section 116.145 of this code may be assessed only after the person charged with the violation has been given an opportunity for a public hearing.
- (b) If a public hearing has been held, the commission shall make findings of fact, and it shall issue a written decision as to the occurrence of the violation and the amount of the penalty that is warranted, incorporating, when appropriate, an order requiring that the penalty be paid.
- (c) If appropriate, the commission shall consolidate the hearings with other proceedings under this chapter.
- (d) If the person charged with the violation fails to avail himself of the opportunity for a public hearing, a civil penalty may be assessed by the commission after it has determined that a violation did occur and the amount of the penalty that is warranted.
- (e) The commission shall then issue an order requiring that the penalty be paid.

### **§ 116.145. Payment of Penalty; Refund**

- (a) On the issuance of notice or an order charging that a violation has occurred, the commission shall inform the person charged within 30 days of the proposed amount of the penalty.
- (b) Within the 30-day period immediately following the day on which the notice or order is issued, the person charged with the penalty shall pay the proposed penalty in full or, if the person wishes to contest either the amount of the penalty or the fact of the violation, forward the proposed amount to the commission for placement in an escrow account.
- (c) If through administrative or judicial review of the proposed penalty it is determined that no violation occurred or that the amount of the penalty should be reduced, the commission shall, within the 30-day period immediately following that determination, remit the appropriate amount to the person, with interest at the prevailing United States Department of the Treasury rate.
- (d) Failure to forward the money to the commission within the time provided by Subsection (b) of this section results in a waiver of all legal rights to contest the violation or the amount of the penalty.

### **§ 116.146. Recovery of Penalty**

Civil penalties owed under Sections 116.143 through 116.145 of this code may be recovered in a civil action brought by the attorney general at the request of the commission